



STIC Search Report

Biotech-Chem Library

STIC Database Tracking Number: 117983

To: Sarvamangala Devi
Location: REM 3C18/3B07
Art Unit: 1645
Friday, March 26, 2004

Case Serial Number: 10/048146

From: Beverly Shears
Location: Remsen Bldg.
RM 1A54
Phone: 571-272-2528

beverly.shears@uspto.gov

Search Notes

Shears, Beverly

From: Devi, Sarvamangala
Sent: Wednesday, March 24, 2004 8:42 AM
To: Shears, Beverly
Subject: 10/048,146

Beverly:

Please perform a sequence and an interference search for SEQ ID NO: 2, 4, 6 and 7, and an at least three amino acid-long fragment thereof in application 10/048,146.

Please perform a text search for TS-14 (a 14 kDa polypeptide), TS-18 (a 18 kDa polypeptide) and TSRS-1 (a 21 kDa polypeptide) larval ?protein antigens or polypeptides of Taenia solium (tape worm).

Please perform an inventors' name search: Victor C.W. Tsang; Ryan M. Greene; Patricia P. Wilkins; Kathy Hancock.

Thanks.

S. DEVI, Ph.D.
AU 1645
Rems - 3C18/3B07

Date completed: 03-25-04
Searcher: Beverly C 2528
Terminal time: _____
Elapsed time: _____
CPU time: _____
Total time: _____
Number of Searches: _____
Number of Databases: 3

Search Site

____ STIC
____ CM-1
____ Pre-S

Type of Search

____ N.A. Sequence
____ A.A. Sequence
____ Structure
____ Bibliographic

Vendors

____ IG
____ ☒ STN
____ ☒ Dialog
____ APS
____ Geninfo
____ SDC
____ DARC/Questel
____ ☒ Other CGN

Devi, S.
10/048146

10/048146

25mar04 12:19:05 User219783 Session D2004.2

SYSTEM:OS - DIALOG OneSearch
File 65:Inside Conferences 1993-2004/Mar W3
(c) 2004 BLDSC all rts. reserv.
File 440:Current Contents Search(R) 1990-2004/Mar 25
(c) 2004 Inst for Sci Info
File 348:EUROPEAN PATENTS 1978-2004/Mar W02
(c) 2004 European Patent Office
File 357:Derwent Biotech Res. 1982-2004/Mar W4
(c) 2004 Thomson Derwent & ISI
File 113:European R&D Database 1997
(c)1997 Reed-Elsevier(UK)Ltd All rts reserv
*File 113: This file is closed (no updates)

01.25.02
32108 8.3.00
Jpaw. 8.5.99

Set	Items	Description
Set	Items	Description
S1	100	TS14 OR TS18 OR TS(W) (14 OR 18) OR TSRS1 OR TSRS(W)1
S2	8751	14KD? OR 18KD? OR 21KD? OR (14 OR 18 OR 21) (5N) (KD? ? OR K- ILOD? OR KILO(W) (DA OR DALTON? ?))
S3	32	(S1 OR S2) AND (SOLIUM OR TAPEWORM? ? OR TAPE(W)WORM? ?)
S4	26	RD (unique items)

>>>No matching display code(s) found in file(s): 65, 113

-key terms

4/3,AB/1 (Item 1 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)
(c) 2004 Inst for Sci Info. All rts. reserv.

16398415 Document Delivery Available: 000183466200049 References: 48
TITLE: Characterization of the 8-kilodalton antigens of *Taenia solium*
metacestodes and evaluation of their use in an enzyme-linked
immunosorbent assay for serodiagnosis
AUTHOR(S): Hancock K (REPRINT); Khan A; Williams FB; Yushak ML; Pattabhi S;
Noh J; Tsang VCW
AUTHOR(S) E-MAIL: khancock@cdc.gov
CORPORATE SOURCE: Ctr Dis Control & Prevent, Div Parasit Dis, Bldg 23, Room
1001, Mail Stop F-13, 4770 Buford High/Atlanta//GA/30341 (REPRINT); Ctr Dis
Control & Prevent, Div Parasit Dis, /Atlanta//GA/30341
PUBLICATION TYPE: JOURNAL
PUBLICATION: JOURNAL OF CLINICAL MICROBIOLOGY, 2003, V41, N6 (JUN), P
2577-2586
GENUINE ARTICLE#: 688ZB
PUBLISHER: AMER SOC MICROBIOLOGY, 1752 N ST NW, WASHINGTON, DC 20036-2904
USA
ISSN: 0095-1137
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: The Western blot for cysticercosis, which uses lentil lectin
purified glycoprotein (LLGP) antigens extracted from the metacestode of
Taenia solium, has been the "gold standard" serodiagnostic assay
since it was first described in 1989. We report that the diagnostic
antigens at 14, 18, and 21 kDa, as well as some
larger disulfide-bonded antigens, are actually all members of a very
closely related family of proteins, the 8-kDa antigens. The genes for
18 unique, mature proteins have been identified. Nine of these were

Searcher : Shears 571-272-2528

chemically synthesized and tested in an enzyme-linked immunosorbent assay with a battery of defined serum samples, including 32 cysticercosis-positive serum samples reactive with the 8-kDa antigens of LLGP on Western blotting, 34 serum samples from patients with other parasitic infections, and 15 normal human serum samples. One of the 8-kDa antigens, **TsRS1**, is 100% sensitive and 100% specific. **TsRS1** will be one component of a cocktail of three to four synthetic or recombinant antigens, based on the diagnostic bands of the Western blot, which will be used for the serodiagnosis of cysticercosis.

4/3,AB/2 (Item 2 from file: 440)
 DIALOG(R)File 440:Current Contents Search(R)
 (c) 2004 Inst for Sci Info. All rts. reserv.

15540340 Document Delivery Available: 000180612300008 References: 18
 TITLE: *Taenia saginata* derived synthetic peptides with potential for the diagnosis of bovine cysticercosis
 AUTHOR(S): Ferrer E; Benitez L; Foster-Cuevas M; Bryce D; Wamae LW; Onyango-Abuje JA; Garate T; Harrison LJS (REPRINT); Parkhouse RME
 AUTHOR(S) E-MAIL: leslie.harrison@ed.ac.uk
 CORPORATE SOURCE: Univ Edinburgh, Dept Trop Anim Hlth, /Roslin EH25 9RG/Midlothian/Scotland/ (REPRINT); Univ Edinburgh, Dept Trop Anim Hlth, /Roslin EH25 9RG/Midlothian/Scotland/; AFRC, Pirbright Lab, /Woking GU24 0NF/Surrey/England/; Inst Salud Carlos III, Ctr Nacl Microbiol, /Madrid 28220//Spain/; Kenya Agr Res Inst, Natl Vet Res Ctr, /Kikuyu//Kenya/; Gulbenkian Inst Sci, /Oeiras//Portugal/
 PUBLICATION TYPE: JOURNAL
 PUBLICATION: VETERINARY PARASITOLOGY, 2003, V111, N1 (JAN 20), P83-94
 GENUINE ARTICLE#: 639DL
 PUBLISHER: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS
 ISSN: 0304-4017
 LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: Immunity in Taeniids is predominantly antibody mediated and thus many serological immunodeterminants will have potential in both protection and diagnosis. The antigenicity of six peptides derived from four potentially protective molecules cloned from a *Taenia saginata* oncospheres cDNA library have been evaluated as targets for the specific diagnosis of bovine cysticercosis. The six peptides consist of: two peptides (HP6-2 and HP6-3) derived from the sequence of the 18 kDa surface/secreted oncospherical adhesion antigen identified by McAb-HP6, two peptides (Ts45W-1 and Ts45W-5) derived from the sequence of the *T. saginata* homologue of the *T. ovis* 45W protective gene family, one peptide (TS45S-10) derived from a *T. saginata* sequence with significant similarity to the *T. ovis* 45S protective antigen, and one peptide (TEG-1) derived from the sequence of the *T. saginata* homologue of *Echinococcus* spp. main surface protein. Longitudinal studies indicate that *T. saginata* infected cattle respond to all six peptides by 3-4 weeks post-infection and that the antibody levels remain high for at least 12 weeks post-infection. As protection against Taeniid parasites is predominantly antibody mediated, some of these six peptides may be of value as immuno-prophylactic tools and hence also in assays to determine resistance to infection with the parasite. For diagnosis, on the other hand, only three peptides (HP6-2, TEG-1 and Ts45S-10) performed with the necessary sensitivity and specificity to determine exposure to infection with *T. saginata*, and now merit an

exhaustive evaluation prior to employment as routine diagnostic tools. (C)
2002 Elsevier Science B.V. All rights reserved.

4/3,AB/3 (Item 3 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)
(c) 2004 Inst for Sci Info. All rts. reserv.

14288138 Document Delivery Available: 000176685300003 References: 25
TITLE: Excretory/secretory antigens (ES) from in-vitro cultures of *Taenia crassiceps* cysticerci, and use of an anti-ES monoclonal antibody for antigen detection in samples of cerebrospinal fluid from patients with neurocysticercosis
AUTHOR(S): Espindola NM; Vaz AJ (REPRINT); Pardini AX; Fernandes I
AUTHOR(S) E-MAIL: ajvaz@netpoint.com.br
CORPORATE SOURCE: Univ Sao Paulo, Clin Immunol Lab, Av Prof Lineu Prestes 580, Bloco 17/BR-05508900 Sao Paulo//Brazil/ (REPRINT); Univ Sao Paulo, Clin Immunol Lab, /BR-05508900 Sao Paulo//Brazil/; Inst Butantan, Immunopathol Lab, /BR-05503900 Butantan/SP/Brazil/
PUBLICATION TYPE: JOURNAL
PUBLICATION: ANNALS OF TROPICAL MEDICINE AND PARASITOLOGY, 2002, V96, N4 (JUN), P361-368
GENUINE ARTICLE#: 570XG
PUBLISHER: W S MANEY & SONS LTD, HUDSON RD, LEEDS LS9 7DL, ENGLAND
ISSN: 0003-4983
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: Antigens were obtained from cysticerci of the ORE strain of *Taenia crassiceps*, by culture of cysts in protein-free hybridoma medium (PFHM). Budding of new vesicles was observed after 24-48 h. Excretory/secretory (ES) antigens (peptides of <20 kDa) were recovered in the medium after culture for 48 h. SDS-PAGE analysis of vesicular-fluid (VF) antigens, (obtained by rupturing *T. crassiceps* cysticerci in PFHM) and the ES antigens indicated partial homology between the two preparations. ES peptides of 18- and 14-kDa were recognized by polyclonal antibodies produced in rabbits immunized either with the VF antigens or with a total-antigen preparation of *T. solium* cysticerci. Antibodies present in samples of serum or cerebrospinal fluid (CSF) from patients with neurocysticercosis also reacted with ES peptides. An anti-ES monoclonal antibody detected antigens in the CSF from 10 patients with neurocysticercosis, showing the antigenic homology of the ES antigens with those of *T. solium* cysticerci in human infections.

4/3,AB/4 (Item 4 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)
(c) 2004 Inst for Sci Info. All rts. reserv.

14286909 Document Delivery Available: 000176773600008 References: 47
TITLE: Evaluation of an antigen from *Taenia crassiceps* cysticercus for the serodiagnosis of neurocysticercosis
AUTHOR(S): Peralta RHS; Vaz AJ; Pardini A; Macedo HW; Machado LR; De Simone SG; Peralta JM (REPRINT)
AUTHOR(S) E-MAIL: peralta@micro.ufrj.br
CORPORATE SOURCE: Fed Univ Rio De Janeiro, Ctr Ciencias Saude, Bloco 1, Ilha Fundao/BR-21941970 Rio De Janeiro//Brazil/ (REPRINT); Fed Univ Rio De

10/048146

Janeiro, Ctr Ciencias Saude, /BR-21941970 Rio De Janeiro//Brazil//; Inst Oswaldo Cruz, Dept Bioquim & Biol Mol, /BR-20001 Rio De Janeiro//Brazil//; Univ Sao Paulo, Ctr Invest Neurol, /Sao Paulo//Brazil//; Univ Sao Paulo, Fac Med, /Sao Paulo//Brazil//; Univ Sao Paulo, Fac Ciencias Farmaceut, /Sao Paulo//Brazil//; Univ Fed Fluminense, Dept Patol, /Niteroi/RJ/Brazil/

PUBLICATION TYPE: JOURNAL
PUBLICATION: ACTA TROPICA, 2002, V83, N2 (AUG), P159-168
GENUINE ARTICLE#: 572KN
PUBLISHER: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS
ISSN: 0001-706X
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: We report here the evaluation of an antigen from *Taenia crassiceps* cysticercus as a potential reagent in an enzyme-immuno-electrotransfer blotting assay (EITB) and an enzyme-linked immunosorbent assay (ELISA) for the serodiagnosis of neurocysticercosis (NC) using clinical specimens obtained from patients in different phases of the disease. Serum and cerebrospinal fluid (CSF) samples from 64 patients suspected of having NC according to clinical manifestation and brain computed tomography were tested by ELISA with *Taenia solium* total saline antigen (ELISA-Tso) and by immunoblotting with *T. crassiceps* glycoproteins antigen (EITB-gpTcra). Forty-five serum samples were also tested immunoblotting with *T. solium* glycoproteins antigen (EITB-gpTso) and 30 were tested by ELISA with *T. crassiceps* 14 kDa glycoprotein (ELISA-gp14Tcra). Serum samples from apparently healthy individuals without any parasitic disease and from patients with other parasitic diseases were included as controls. The results of ELISA-Tso analysis with CSF obtained from 64 patients with NC showed that 53 (83%) were reactive. EITB-gpTcra analysis with serum from the same group of patients showed a sensitivity of 91%. Results of EITB-gpTso and EITB-gpTcra analysis with serum samples demonstrated an agreement of 100% between both tests. ELISA-gp14Tcra was positive in 23 (77%) sera, 22 with paired CSF positive. When ELISA-gp14Tcra results were compared to EITB-Tso results, a relative sensitivity of 95% was observed. All serum samples from the control group were negative in ELISA-gp14Tcra and only one serum from an individual with *Taenia saginata* was reactive in this assay, showing a specificity of 99% for ELISA-gp14Tcra. This fraction was purified in only one step with a good yield for use in immunoassays. We suggest that the gp14Tcra antigen can be used for detecting anti-cysticercus antibodies in serum samples for epidemiological investigation purposes and also for diagnostic screening of NC patients. (C) 2002 Elsevier Science B.V. All rights reserved.

4/3,AB/5 (Item 5 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)
(c) 2004 Inst for Sci Info. All rts. reserv.

13926779 Document Delivery Available: 000175610300010 References: 26
TITLE: Assessment of antibody responses to antigens of *Mycobacterium tuberculosis* and *Cysticercus cellulosae* in cerebrospinal fluid of chronic meningitis patients for definitive diagnosis as TBM/NCC by passive hemagglutination and immunoblot assays
AUTHOR(S): Katti MK (REPRINT)
AUTHOR(S) E-MAIL: mkk@sctimst.ker.nic.in
CORPORATE SOURCE: Sree Chitra Tirunal Inst Med Sci & Technol, Immunol Lab,

Searcher : Shears 571-272-2528

/Trivandrum 695011/Kerala/India/ (REPRINT); Sree Chitra Tirunal Inst Med
 Sci & Technol, Immunol Lab, /Trivandrum 695011/Kerala/India/
 PUBLICATION TYPE: JOURNAL
 PUBLICATION: FEMS IMMUNOLOGY AND MEDICAL MICROBIOLOGY, 2002, V33, N1 (MAR
 25), P57-61
 GENUINE ARTICLE#: 552GC
 PUBLISHER: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS
 ISSN: 0928-8244
 LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: Tanned sheep erythrocytes stabilized with pyruvic aldehyde and glutaraldehyde, called double-aldehyde-stabilized cells, were used to standardize passive hemagglutination assay (PHA) for detection of antibody responses to sonicate extract of *Mycobacterium tuberculosis* and *Cysticercus cellulosae* soluble antigens. PHA was performed in the following groups of cerebrospinal fluid (CSF) samples: group I chronic infections of the central nervous system with the possible diagnosis of tuberculous meningitis (TBM), tuberculoma and neurocysticercosis (NCC) (n = 88), and group II - controls which included (a) non-infectious non-neurological conditions (n = 30), (b) infectious neurological conditions (n = 21) and (c) non-infectious neurological conditions (n = 133). PHA could detect antimycobacterial antibodies at the sensitivity level of 80.76% with a specificity of 92.4% and anti-cysticercal antibodies with a sensitivity of 100% and specificity of 92.94%. However, in 6.33% (i.e. 14/221) of group I and group II (c) CSFs both anti-mycobacterial and anticysticercal antibodies were detected. Immunoblot analysis of CSFs derived from TBM patients reacted predominantly to 120-kDa, 96-kDa, 65-kDa, 38-kDa, 26-kDa, 23-kDa, 19-kDa and 12-14-kDa and 4-6-kDa antigens of *M. tuberculosis* sonicate extract (MTSE), whilst CSFs of proven NCC reacted to > 110-kDa, 96-kDa, 80-kDa, 66-68-kDa, 52-kDa and 26-28-kDa antigens of porcine whole cyst sonicate extract (PCSE). On immunoblot analysis, some of the CSFs of TBM patients were PHA positive for both MTSE and PCSE showed antibody reactivity to 70-kDa and 10-kDa antigens of *C. cellulosae*. Similarly CSF antibody of some Guillain Barre syndrome and myeloradiculopathy patients reacted with cysticercal antigens. But per se no cross-reactivity between MTSE and anti-cysticercal antibodies and vice-versa were observed. However, findings of this study should alert laboratory personnel especially in endemic areas to be extra careful in interpretation of antibody detection results. (C)
 2002 Federation of European Microbiological Societies. Published by Elsevier Science B.V. All rights reserved.

4/3,AB/6 (Item 6 from file: 440)
 DIALOG(R)File 440:Current Contents Search(R)
 (c) 2004 Inst for Sci Info. All rts. reserv.

13387626 References: 37

TITLE: Sequence variation in the cytochrome oxidase I, internal transcribed spacer 1, and **Ts14** diagnostic antigen sequences of *Taenia solium* isolates from South and Central America, India, and Asia
AUTHOR(S): Hancock K (REPRINT); Broughel DE; Moura INS; Khan A; Pieniazek NJ; Gonzalez AE; Garcia HH; Gilman RH; Tsang VCW
AUTHOR(S) E-MAIL: khancock@cdc.gov
CORPORATE SOURCE: Ctr Dis Control & Prevent, Div Parasit Dis, Bldg 23, Room 1001, Mail Stop F-13, 4770 Buford High/Atlanta//GA/30341 (REPRINT); Ctr Dis

10/048146

Control & Prevent, Div Parasit Dis, /Atlanta//GA/30341; Univ Nacl Mayor San Marcos, Sch Vet Med, /Lima 14//Peru/; Univ Peruana Cayetano Heredia, Dept Microbiol, /Lima//Peru/; Univ Peruana Cayetano Heredia, Dept Pathol, /Lima//Peru/; Inst Nacl Ciencias Neurol, Dept Transmissible Dis, /Lima//Peru/; Johns Hopkins Univ, Sch Hyg & Publ Hlth, /Baltimore//MD/
PUBLICATION TYPE: JOURNAL
PUBLICATION: INTERNATIONAL JOURNAL FOR PARASITOLOGY, 2001, V31, N14 (DEC), P1601-1607
GENUINE ARTICLE#: 509DX
PUBLISHER: PERGAMON-ELSEVIER SCIENCE LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, ENGLAND
ISSN: 0020-7519
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: We examined the genetic variability in the pig-human **tapeworm**, *Taenia solium*, by sequencing the genes for cytochrome oxidase 1, internal transcribed spacer 1, and a diagnostic antigen, **Ts14**, from individual cysts isolated from Peru, Colombia, Mexico, India, China, and the Philippines. For these genes the rate of nucleotide variation was minimal. Isolates from these countries can be distinguished based on one to eight nucleotide differences in the 396 nucleotide cytochrome oxidase I (COI) sequence. However, all of the 15 isolates from within Peru had identical COI sequences. The **Ts14** sequences from India and China were identical and differed from the Peru sequence by three nucleotides in 333. These data indicate that there is minimal genetic variability within the species *T. solium*. Minimal variability was also seen in the ITS1 sequence, but this variation was observed within the individual. Twenty-two cloned sequences from six isolates sorted into 13 unique sequences. The variability observed within the sequences from individual cysts was as great as the variability between the isolates. Published by Elsevier Science Ltd. on behalf of Australian Society for Parasitology.

4/3,AB/7 (Item 7 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)
(c) 2004 Inst for Sci Info. All rts. reserv.

13383450 References: 27

TITLE: Use of *Taenia crassiceps* cysticercus antigen preparations for detection of antibodies in cerebrospinal fluid samples from patients with neurocysticercosis (*Taenia solium*)

AUTHOR(S): Pardini AX; Peralta RH; Vaz AJ (REPRINT); Machado LD; Peralta JM
AUTHOR(S) E-MAIL: ajvaz@netpoint.com.br

CORPORATE SOURCE: Univ Sao Paulo, Clin Immunol Lab, Av Lineu Prestes 580, Bloco 17/BR-05508900 Sao Paulo//Brazil/ (REPRINT); Univ Sao Paulo, Clin Immunol Lab, /BR-05508900 Sao Paulo//Brazil/; Univ Sao Paulo, Ctr Neurol Invest, /Sao Paulo//Brazil/; Univ Fed Rio de Janeiro, Inst Microbiol, /BR-21941 Rio De Janeiro//Brazil/

PUBLICATION TYPE: JOURNAL

PUBLICATION: CLINICAL AND DIAGNOSTIC LABORATORY IMMUNOLOGY, 2002, V9, N1 (JAN), P190-193

GENUINE ARTICLE#: 509VU

PUBLISHER: AMER SOC MICROBIOLOGY, 1752 N ST NW, WASHINGTON, DC 20036-2904 USA

ISSN: 1071-412X

Searcher : Shears 571-272-2528

LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: Antigen extracts obtained from the vesicular fluid of *Taenia crassiceps* cysticerci and from fractions purified by affinity chromatography with the lectin concanavalin A and the glycoprotein antigen separated by electrophoresis were used for the detection of *Taenia solium* anticysticercus antibodies. The sensitivity and specificity obtained for all antigens were 100% in enzyme-linked immunosorbent assay with good reproducibility. Using immunoblotting of the three antigens, low-molecular-mass peptides (18 and 14 kDa) were characterized only in cerebrospinal fluid samples from patients with neurocysticercosis. The results confirm that antigen fractions purified from *T. crassiceps* cysticerci are important sources of specific peptides and proved to be efficient in detecting anti-*T. solium* antibodies.

4/3,AB/8 (Item 8 from file: 440)
 DIALOG(R)File 440:Current Contents Search(R)
 (c) 2004 Inst for Sci Info. All rts. reserv.

13215035 References: 27

TITLE: Serodiagnosis of human cysticercosis by using antigens from vesicular fluid of *Taenia crassiceps* cysticerci

AUTHOR(S): Bueno EC; Snege M; Vaz AJ (REPRINT); Leser PG

AUTHOR(S) E-MAIL: ajvaz@netpoint.com.br

CORPORATE SOURCE: Univ Sao Paulo, Clin Immunol Lab, Av Lineu Prestes 580, Bloco 17/BR-05508900 Sao Paulo//Brazil/ (REPRINT); Univ Sao Paulo, Clin Immunol Lab, /BR-05508900 Sao Paulo//Brazil/; Univ Vale Itajai, Clin Immunol Lab, /Itajai/SC/Brazil/; Fleury Lab, /Sao Paulo//Brazil/

PUBLICATION TYPE: JOURNAL

PUBLICATION: CLINICAL AND DIAGNOSTIC LABORATORY IMMUNOLOGY, 2001, V8, N6 (NOV), P1140-1144

GENUINE ARTICLE#: 490EA

PUBLISHER: AMER SOC MICROBIOLOGY, 1752 N ST NW, WASHINGTON, DC 20036-2904 USA

ISSN: 1071-412X

LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: Neurocysticercosis (NC), caused by the presence of *Taenia solium* metacestodes in tissues, is a severe parasitic infection of the central nervous system with universal distribution. To determine the efficiency of enzyme-linked immunosorbent assay (ELISA) and immunoblot with antigens of *T. crassiceps* vesicular fluid (Tcra) compared to standard techniques (indirect immunofluorescence test [IFT] and complement fixation test [CFT]) using *T. solium* cysticerci (Tso) for the serodiagnosis of NC, we studied serum samples from 24 patients with NC, 30 supposedly healthy individuals, 76 blood bank donors, 45 individuals with other non-NC parasitoses, and 97 samples from individuals screened for cysticercosis serology (SC). The sensitivity observed was 100% for ELISA-Tso and ELISA-Tcra, 91.7% for the IFT, and 87.5% for the CFT. The specificity was 90% for ELISA-Tso, 96.7% for ELISA-Tcra, 50% for IFT, and 63.3% for CFT. The efficiency was highest for ELISA-Tcra, followed by ELISA-Tso, IFT, and CFT. Of the 23 samples from SC group, which were reactive to ELISA-Tso and/or ELISA-Tcra, only 3 were positive to immunoblot-Tcra (specific peptides of 14- and 18-kDa) and to glycoprotein peptides purified from Tcra antigen (gp-Tcra), showing the low predictive value of

ELISA for screening. None of the samples from the remaining groups showed specific reactivity in immunoblot-Tcra. These results demonstrate that ELISA-Tcra can be used as a screening method for the serodiagnosis of NC and support the need for specific tests for confirmation of the results. The immunoblot can be used as a confirmatory test both with Tcra and gp-Tcra, with the latter having an advantage in terms of visualization of the results.

4/3,AB/9 (Item 9 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)
(c) 2004 Inst for Sci Info. All rts. reserv.

13037270 References: 35

TITLE: Cysticercus antigens in cerebrospinal fluid samples from patients with neurocysticercosis

AUTHOR(S): Pardini AX; Vaz AJ (REPRINT); Machado LDR; Livramento JA

AUTHOR(S) E-MAIL: pardini@usp.br; ajvaz@netpoint.com.br

CORPORATE SOURCE: Univ Sao Paulo, Lab Imunol Clin, Av Lineu Prestes 580,Bloco 17/BR-05508900 Sao Paulo//Brazil/ (REPRINT); Univ Sao Paulo, Lab Imunol Clin, /BR-05508900 Sao Paulo//Brazil/; Univ Sao Paulo, Ctr Neurol Invest, /BR-01246903 Sao Paulo//Brazil/

PUBLICATION TYPE: JOURNAL

PUBLICATION: JOURNAL OF CLINICAL MICROBIOLOGY, 2001, V39, N9 (SEP), P 3368-3372

GENUINE ARTICLE#: 469VV

PUBLISHER: AMER SOC MICROBIOLOGY, 1752 N ST NW, WASHINGTON, DC 20036-2904 USA

ISSN: 0095-1137

LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: Antigens were detected in cerebrospinal fluid (CSF) samples from patients with neurocysticercosis (NC) by enzyme-linked immunosorbent assay (ELISA) using polyclonal sera of rabbit anti-Taenia solium cysticerci (anti-Tso) and anti-Taenia crassiceps cysticerci vesicular fluid (anti-Tcra or anti-Tcra <30 kDa). A group of NC patients (n=174) were studied (NC), including 40 patients in different phases of the disease. ELISAs carried out with the anti-Tso, anti-Tcra, and anti-Tcra <30 kDa showed sensitivities of 81.2, 90, and 95.8% and specificities of 82, 98, and 100%, respectively. The 14- and 18-kDa low-molecular-weight peptides were only detected in CSF samples from patients with NC by immunoblotting with anti-Tso and anti-Tcra sera. Because of the importance of the diagnosis and prognosis of cysticercosis, the detection of antigens may contribute as an additional marker to the study and clarification of the parasite-host relationship.

4/3,AB/10 (Item 10 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)
(c) 2004 Inst for Sci Info. All rts. reserv.

12786112 References: 13

TITLE: The role of N-linked carbohydrates in the antigenicity of Taenia solium metacestode glycoproteins of 12, 16 and 18 kD

AUTHOR(S): Obregon-Henao A; Gil DL; Gomez DI; Sanzon F; Teale JM; Restrepo BI (REPRINT)

10/048146

AUTHOR(S) E-MAIL: blancos@epm.net.co
CORPORATE SOURCE: Corp Invest Biol, Mol Parasitol Grp, Cra 72A, No
78/Medellin//Colombia/ (REPRINT); Corp Invest Biol, Mol Parasitol Grp,
/Medellin//Colombia/; Univ Antioquia, Escuela Bacteriol,
/Medellin//Colombia/; Univ Narino, Fac Ciencias Pecuarias, /San Juan
Pasto//Colombia/; Univ Texas, Dept Microbiol, /San Antonio//TX/78284
PUBLICATION TYPE: JOURNAL
PUBLICATION: MOLECULAR AND BIOCHEMICAL PARASITOLOGY, 2001, V114, N2 (MAY)
, P209-215
GENUINE ARTICLE#: 436FB
PUBLISHER: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS
ISSN: 0166-6851
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: The glycoproteins of 12-28 kD from *Taenia solium* metacestodes provide a high specificity and sensitivity for the serological diagnosis of the central nervous system infection, neurocysticercosis. Their widespread use as antigens for routine serological assays will require their production in large and reproducible amounts. Prior to determining the ideal strategy to produce these antigens at a large scale, it is important to determine the contribution of the carbohydrates to the antigenicity of these molecules, given the uncertainty of reproducing saccharidic epitopes in recombinant expression systems. In this study we examined this issue. The chemical oxidation of the carbohydrates of the 12-28 kD glycoproteins with sodium metaperiodate, reduced the antigenicity of the molecules to variable extents, with the more notable changes being detected for the 18 and 28 kD antigens. This approach was complemented by purification of the 12, 16 and 18 kD antigens, followed by the enzymatic deglycosylation of their abundant N-linked oligosaccharides, Silver-stained SDS-PAGE analysis indicated that the three deglycosylated antigens now migrated as 7 kD products, suggesting a protein backbone with a similar size, but different extents of glycosylation. By Western blot, the antigenicity of these antigens was diminished. This was more notable for the 18 kD antigen, which is more heavily glycosylated than the 12 or 16 kD glycoproteins. These data suggest that the antigenicity of the glycoproteins of *T. solium* is due to a combination of carbohydrate and protein epitopes. (C) 2001 Elsevier Science B.V. All rights reserved.

4/3,AB/11 (Item 11 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)
(c) 2004 Inst for Sci Info. All rts. reserv.

12095769 References: 22
TITLE: *Taenia solium*: Molecular cloning and serologic evaluation of
14-and 18-kDa related, diagnostic antigens
AUTHOR(S): Greene RM; Hancock K; Wilkins PP; Tsang VCW (REPRINT)
CORPORATE SOURCE: Ctr Dis Control & Prevent, Publ Hlth Serv, US Dept HHS,
/Atlanta//GA/30333 (REPRINT); Univ Georgia, Dept Cellular Biol,
/Athens//GA/30602
PUBLICATION TYPE: JOURNAL
PUBLICATION: JOURNAL OF PARASITOLOGY, 2000, V86, N5 (OCT), P1001-1007
GENUINE ARTICLE#: 365NQ
PUBLISHER: AMER SOC PARASITOLOGISTS, 810 EAST 10TH STREET, LAWRENCE, KS
66044 USA

Searcher : Shears 571-272-2528

ISSN: 0022-3395

LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: We are attempting to design a simpler assay based on synthetic or recombinant antigens to replace the labor-intensive enzyme-linked immunoelectrotransfer blot (EITB-C), which is currently used to diagnose *Taenia solium* cysticercosis. From the lentil lectin-bound fraction of cyst glycoproteins (the LLGP fraction used in the EITB-C), we previously identified and purified 2 related polypeptides of 14- and 18-kDa that demonstrated diagnostic usefulness. Using degenerate oligonucleotide primers corresponding to amino acid sequences of these polypeptides and a cDNA library prepared from *T. solium* cysticerci, we amplified cDNA clones that represent the 14- and 18-kDa polypeptides. These clones share sequence homology at the nucleotide and amino acid levels. Synthetic polypeptides that represented the full-length, mature proteins (sTS14 and sTS18) were assessed for serologic potential using an ELISA. sTS14, but not sTS18, demonstrated utility as a diagnostic antigen, sTS14 was recognized by antibodies in a majority of the sera from patients with cysticercosis and none of the sera from persons with other helminth infections or uninfected human sera. Furthermore, polyclonal antibodies to sTS14 reacted with 6 discrete proteins present in the LLGP cyst fraction, suggesting that TS14 is a subunit of other previously described antigens used for diagnosing cysticercosis.

4/3,AB/12 (Item 12 from file: 440)
 DIALOG(R)File 440:Current Contents Search(R)
 (c) 2004 Inst for Sci Info. All rts. reserv.

11849598 References: 26

TITLE: ELISA and Western Blotting tests in the detection of IgG antibodies to *Taenia solium* metacestodes in serum samples in human neurocysticercosis

AUTHOR(S): Shiguekawa KYM; Mineo JR; de Moura LP; Costa-Cruz JM (REPRINT)
CORPORATE SOURCE: Univ Fed Uberlandia, Parasitol Lab, Av Para 1720/BR-38400902 Uberlandia/MG/Brazil/ (REPRINT); Univ Fed Uberlandia, Parasitol Lab, /BR-38400902 Uberlandia/MG/Brazil/; Univ Fed Uberlandia, Dept Neurol, /BR-38400902 Uberlandia/MG/Brazil/

PUBLICATION TYPE: JOURNAL

PUBLICATION: TROPICAL MEDICINE & INTERNATIONAL HEALTH, 2000, V5, N6 (JUN), P443-449

GENUINE ARTICLE#: 337LP

PUBLISHER: BLACKWELL SCIENCE LTD, P O BOX 88, OSNEY MEAD, OXFORD OX2 ONE, OXON, ENGLAND

ISSN: 1360-2276

LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: A comparative study of total saline extract (SE) and cyst vesicular fluid (VF) of *Taenia solium* metacestodes by ELISA and Western blotting assay (WB) tests was conducted to detect Ige in sera for diagnosis of human cysticercosis. Sera were obtained and analysed by ELISA in 1:20 and 1:100 dilutions from 208 individuals: 12 confirmed neurocysticercosis (NC) (group 1), 101 suspected NC (group 2), 55 with various intestinal parasitosis (group 3) and 30 healthy individuals (group 4). The WE test was carried out on SE and VF extracts with and without

reducing agent, 2-beta-mercaptoethanol (2-ME) in 20 sera of each group. WE using extracts without 2-ME. and ELISA at 1 : 100 dilution were compared in 20 sera from each group; sensitivity and specificity were calculated using samples from groups 1, 3 and 4. By ELISA, in the 1 : 100 sera dilution reactivity was reduced for both antigens without changes in the sensitivity of the test. By WB, antigens treated with 2-ME demonstrated low specificity. For SE and VF antigens, the proteins of 24, 39-42, 47-52, 56, 64-68, 126-155 kDa and 18, 24, 26-25, 32-36, 47-52, 75 kDa, respectively, were considered immunodominant markers, with high indices of specificity, suggesting a profile for NC patients. However, as the sensitivity was found to be low, it might still not be a definitive test for NC when used alone. These data suggest WB as an indicative test to determine exposure to *T. solium*. ELISA and WE together may supply reliable results for the diagnosis of human cysticercosis, since appropriate purified antigens are not available yet.

4/3,AB/13 (Item 13 from file: 440)
 DIALOG(R)File 440:Current Contents Search(R)
 (c) 2004 Inst for Sci Info. All rts. reserv.

10555026 References: 14
 TITLE: Diagnostic glycoproteins of *Taenia solium* cysts share homologous 14-and 18-kDa subunits
 AUTHOR(S): Greene RM (REPRINT); Wilkins PP; Tsang VCW
 AUTHOR(S) E-MAIL: rxg3@cdc.gov
 CORPORATE SOURCE: Univ Georgia, Dept Cellular Biol, /Athens//GA/30602 (REPRINT); Univ Georgia, Dept Cellular Biol, /Athens//GA/30602; Ctr Dis Control & Prevent, Publ Hlth Serv, /Atlanta//GA/30341
 PUBLICATION TYPE: JOURNAL
 PUBLICATION: MOLECULAR AND BIOCHEMICAL PARASITOLOGY, 1999, V99, N2 (APR 30), P257-261
 GENUINE ARTICLE#: 194XT
 PUBLISHER: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS
 ISSN: 0166-6851
 LANGUAGE: English DOCUMENT TYPE: ARTICLE

4/3,AB/14 (Item 14 from file: 440)
 DIALOG(R)File 440:Current Contents Search(R)
 (c) 2004 Inst for Sci Info. All rts. reserv.

09688180 References: 20
 TITLE: Evaluation of excretory/secretory products of larval *Taenia solium* as diagnostic antigens for porcine and human cysticercosis
 AUTHOR(S): Ko RC (REPRINT); Ng TF
 CORPORATE SOURCE: UNIV HONG KONG, DEPT ZOOL, HUI OI CHOW SCI BLDG, POKFULAM RD/HONG KONG//PEOPLES R CHINA/ (REPRINT)
 PUBLICATION TYPE: JOURNAL
 PUBLICATION: JOURNAL OF HELMINTHOLOGY, 1998, V72, N2 (JUN), P147-154
 GENUINE ARTICLE#: 102RN
 PUBLISHER: C A B INTERNATIONAL, C/O PUBLISHING DIVISION, WALLINGFORD OX10 8DE, OXON, ENGLAND
 ISSN: 0022-149X
 LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: Excretory/secretory antigens (ES) of larval *Taenia solium* were obtained by maintaining the bladder worms in Medium 199 for 3 days. Analysis by SDS-PAGE showed that ES antigens consisted of at least 19 polypeptides, with M-r ranging from 14-116 kDa. Analytical isoelectric focusing revealed eight bands with acidic pI. An immunocytochemical study using the peroxidase method demonstrated the presence of ES epitopes on the tegument of the wall of the spiral canals of bladder worms. The specificity of ES antigens was evaluated by EITB, ELISA and FAST-ELISA using antisera against the common parasites of Chinese pigs and man. ES antigens cross-reacted with the antiserum against larval *T. hydatigena* of pigs. However, these antigens were generally more specific in diagnosing human cysticercosis. Three host-like molecules with molecular masses 43, 58 and 66 kDa were present in the ES products.

4/3,AB/15 (Item 15 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)
(c) 2004 Inst for Sci Info. All rts. reserv.

09550626 References: 13

TITLE: A *Taenia solium* oncosphere protein homologous to host-protective *Taenia ovis* and *Taenia saginata* 18 kDa antigens

AUTHOR(S): Gauci CGP (REPRINT); Flisser A; Lightowlers MW
CORPORATE SOURCE: UNIV MELBOURNE, MOL PARASITOL LAB, PRINCES
HIGHWAY/WERRIBEE/VIC 3030/AUSTRALIA/ (REPRINT); UNIV NACL AUTONOMA
MEXICO, FAC MED, DEPT MICROBIOL & PARASITOL/MEXICO CITY 04510/DF/MEXICO/
INST NACL DIAGNOST & REFERENCIA EPIDEMIOLOG, SSA/MEXICO CITY
11340/DF/MEXICO/

PUBLICATION TYPE: JOURNAL

PUBLICATION: INTERNATIONAL JOURNAL FOR PARASITOLOGY, 1998, V28, N5 (MAY), P 757-760

GENUINE ARTICLE#: ZT669

PUBLISHER: PERGAMON-ELSEVIER SCIENCE LTD, THE BOULEVARD, LANGFORD LANE,
KIDLINGTON, OXFORD OX5 1GB, ENGLAND

ISSN: 0020-7519

LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: A *Taenia solium* cDNA (TSOL-18) encoding a protein with close homology to host protective oncosphere antigens from *Taenia ovis* (To18) and *Taenia saginata* (TSA-18) is described here. TSOL-18 was cloned from mRNA obtained from hatched and activated oncospheres of *T. solium*. The high level of predicted amino acid sequence homology among TSOL-18 and other host protective taeniid antigens suggests that the protein expressed by TSOL-18 may be capable of being used as a vaccine against *T. solium* infection in the parasite's intermediate hosts. (C) 1998 Australian Society for Parasitology. Published by Elsevier Science Ltd.

4/3,AB/16 (Item 16 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)
(c) 2004 Inst for Sci Info. All rts. reserv.

08986530 References: 74

TITLE: Basic and applied immunology in cestode infections: from *Hymenolepis*

to Taenia and Echinococcus
 AUTHOR(S): Ito A (REPRINT)
 CORPORATE SOURCE: GIFU UNIV, SCH MED, DEPT PARASITOL/GIFU 500//JAPAN/
 (REPRINT)
 PUBLICATION TYPE: JOURNAL
 PUBLICATION: INTERNATIONAL JOURNAL FOR PARASITOLOGY, 1997, V27, N10 (OCT)
 , P1203-1211
 GENUINE ARTICLE#: YF814
 PUBLISHER: PERGAMON-ELSEVIER SCIENCE LTD, THE BOULEVARD, LANGFORD LANE,
 KIDLINGTON, OXFORD, ENGLAND OX5 1GB
 ISSN: 0020-7519
 LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: In larval cestode infections, it is well established that the intermediate mammalian host infected with egg-derived metacestodes in the tissue becomes completely immune to reinfection with eggs, whereas autoinfection has been conceived to occur in Hymenolepis nana/mouse (and human) and Taenia solium/human systems when these hosts are initially infected with metacestode-derived adult tapeworms in the lumen. In this review paper, the first topic is immunobiology of H. nana/mouse system on the reinfection immunity in order to get critical information as to how the initially ingested parasite (eggs or metacestodes) can develop into adult worms and how autoinfection does or does not occur in immunocompetent mice, since H. nana can complete its whole life cycle in the mouse intestinal tissue and lumen. When mice are infected with eggs (= oncospheres) of H. nana, they become immune to challenge infections with eggs within a few days (early response) and with cysticercoids within two weeks (late response). The initially established adult worms are expelled later (worm expulsion response). When mice are infected with cysticercoids, either derived from beetles or mice, they become immune to challenge infection with cysticercoids but not with eggs. Therefore, autoinfection occurs in the intestinal tissue for the establishment of cysticercoids in the tissue but never occurs in the intestinal lumen for the establishment of adult worms in immunocompetent mice. The second topic is vaccination trial against challenge infection with eggs of Asian Taenia in pigs. Pigs vaccinated with frozen oncospheres of Asian Taenia from Taiwan or Korea or T. saginata showed very strong resistance, whereas pigs vaccinated with those of T. solium showed partial resistance only. It is suggested that Asian Taenia is much closer to T. saginata than T. solium from the immunobiological viewpoint. The third topic is immunodiagnosis of echinococcosis and cysticercosis. Immunoblot analysis has revealed that Em18 (18 kDa component of crude antigens of Echinococcus multilocularis protoscolex) and glycoproteins of T. solium cysticerci are highly specific or unique to alveolar echinococcosis and cysticercosis, respectively. The fourth topic is discussion on miscellaneous prospects including laboratory animal models for echinococcosis and cysticercosis. (C) 1997 Australian Society for Parasitology. Published by Elsevier Science Ltd.

4/3,AB/17 (Item 17 from file: 440)
 DIALOG(R)File 440:Current Contents Search(R)
 (c) 2004 Inst for Sci Info. All rts. reserv.

07751840 References: 15
 TITLE: High prevalence of serological markers of cysticercosis among

10/048146

epileptic Malagasy children
AUTHOR(S): Grill J (REPRINT) ; Rakotomalala W; Andriantsimahavandy A;
Boisier P; Guyon P; Roux J; Esterre P
CORPORATE SOURCE: HOP ST VINCENT DE PAUL, DEPT NEUROPAEDIAT, 74-82 AVE
DENFERT ROCHEREAU/F-75674 PARIS 14//FRANCE/ (REPRINT); SOAVINANDRIANA
HOSP, DEPT PAEDIAT/ANTANANARIVO//MALAGASY REPUB/
PUBLICATION TYPE: JOURNAL
PUBLICATION: ANNALS OF TROPICAL PAEDIATRICS, 1996, V16, N3 (SEP), P185-191
GENUINE ARTICLE#: VH718
PUBLISHER: CARFAX PUBL CO, PO BOX 25, ABINGDON, OXFORDSHIRE, ENGLAND OX14
3UE
ISSN: 0272-4936
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: Neurocysticercosis (i.e. cerebral localization of the metacestode larvae of *Taenia solium*) is believed to be a major cause of late onset epilepsy in non-Muslim developing countries. To define its role in childhood epilepsy in Madagascar, analysis of serological markers of cysticercosis was performed in 256 children with unexplained epilepsy and in 113 controls. Sera were considered positive when high titres in ELISA were present together with at least one of the bands 13, 14, 18, 21, 24 or 32 kD on Western blot. Altogether, 17.6% of the patients versus none of the controls were seropositive using these criteria. When analysing the bands of the Western blot, those of 13, 14 and 18 were significantly more frequently detected in sera of epileptic children than in sera of controls. Neurocysticercosis can be considered the main cause of secondary childhood epilepsy in our country, Madagascar being one of the most important foci in the world.

4/3,AB/18 (Item 18 from file: 440)
DIALOG(R) File 440:Current Contents Search(R)
(c) 2004 Inst for Sci Info. All rts. reserv.

07043796 References: 24

TITLE: EXPERIMENTAL *TAENIA SOLIUM* CYSTICERCOSIS IN PIGS -
CHARACTERISTICS OF THE INFECTION AND ANTIBODY RESPONSE

AUTHOR(S): DEALUJA AS; VILLALOBOS ANM; PLANCARTE A; RODARTE LF; HERNANDEZ M
; SCIUTTO E

CORPORATE SOURCE: UNIV NACL AUTONOMA MEXICO, FAC MED VET & ZOOTECHN/MEXICO
CITY 04510/DF/MEXICO/ (Reprint); UNIV NACL AUTONOMA MEXICO, FAC MED/MEXICO
CITY 04510/DF/MEXICO/; UNIV NACL AUTONOMA MEXICO, INST INVEST
BIOMED/MEXICO CITY 04510/DF/MEXICO/

PUBLICATION: VETERINARY PARASITOLOGY, 1996, V61, N1-2 (JAN), P49-59

GENUINE ARTICLE#: TP507

ISSN: 0304-4017

LANGUAGE: ENGLISH DOCUMENT TYPE: ARTICLE

ABSTRACT: Pigs were infected with taeniid eggs to study the susceptibility to infection and reinfection of the animals of mixed breeds and of different ages, the viability and death of the metacestodes in the host tissue, and the antibody response which accompanies these events. Sixteen pigs were infected with *Taenia solium* eggs for this purpose. At necropsy metacestodes were counted in 2 kg of shoulder muscles and classified as vesicular or caseous, and all the metacestodes in brains were counted and classified. The results show that pigs inoculated at 49 and 60

Searcher : Shears 571-272-2528

days of age became infected to different degrees and reacted differently to the presence of parasites. In the brain the metacestodes remain viable for longer periods than in muscles. Enzyme-linked immunosorbent assay (ELISA) showed a significant rise in antibodies after infection, which started to decrease 92 days post-infection (p.i.). Pigs with viable cysts remained seropositive up to the end of the experiment (281 days p.i.). Antibody levels rose further after reinfection or after treatment. The results of Western blot were comparable to those of ELISA. Antigens of 13, 14 and 18 kDa were most frequently recognized in early infections and then started to decrease 92 days p.i., while the antigens of 42, 50 and 24 kDa were recognized during later stages of infection (200 days p.i.). Western blot did not detect the presence of cerebral metacestodes in those animals that had been treated and had no viable ones in muscles. The results suggest that older animals are more resistant to the infection.

4/3,AB/19 (Item 19 from file: 440)
 DIALOG(R)File 440:Current Contents Search(R)
 (c) 2004 Inst for Sci Info. All rts. reserv.

06835106 References: 23

TITLE: IMMUNOBLOT EVALUATION OF IGG AND IGG-SUBCLASS ANTIBODY RESPONSES FOR IMMUNODIAGNOSIS OF HUMAN ALVEOLAR ECHINOCOCCOSIS

AUTHOR(S): WEN H; CRAIG PS (Reprint); ITO A; VUITTON DA; BRESSONHADNI S; ALLAN JC; ROGAN MT; PAOLILLO E; SHAMBESH M

CORPORATE SOURCE: UNIV SALFORD,DEPT BIOL SCI/SALFORD M5 4WT/LANCS/ENGLAND/ (Reprint); UNIV SALFORD,DEPT BIOL SCI/SALFORD M5 4WT/LANCS/ENGLAND/; XINJIANG MED COLL,DEPT SURG/URUMQI 830000//PEOPLES R CHINA/; XINJIANG MED COLL,HYDATID RES UNIT/URUMQI 830000//PEOPLES R CHINA/; GIFU UNIV,SCH MED,DEPT PARASITOL/GIFU 500//JAPAN/; UNIV FRANCHE COMTE,FAC MED,ALVEOLAR ECHINOCOCCOSIS RES GRP/F-25030 BESANCON//FRANCE/; FDN SAN PADUA/DURAZNO//URUGUAY/; AL FATEH UNIV,DEPT COMMUNITY MED/TRIPOLI//LIBYA/ PUBLICATION: ANNALS OF TROPICAL MEDICINE AND PARASITOLOGY, 1995, V89, N5 (OCT), P485-495

GENUINE ARTICLE#: TA566

ISSN: 0003-4983

LANGUAGE: ENGLISH DOCUMENT TYPE: ARTICLE

ABSTRACT: Antigen binding of total-IgG and IgG-subclass antibodies from patients with alveolar or cystic echinococcosis (AE and CE) was assessed by immunoblotting. Antigen extracts were prepared from Echinococcus multilocularis protoscoleces (EmP) or from homogenized E. multilocularis metacestode tissue (EmCH). Antigens of approximately 44, 35, 27, 21, 17.5 and 16.5 were recognized by total-IgG and IgG,- and IgG(4)-subclass antibodies in some of 50 human AE sera from China, Japan or France. The 44- and 35-kDa polypeptides, present in both EmP and EmCH extracts, were recognized by total-IgG antibodies in sera from 82% and 66% of the AE patients, respectively. However, over 30% cross-reactivity occurred between these two antigens and sera from CE and Taenia solium cysticercosis patients. The immunoblot specificities of the 27-, 21- and 17.5-kDa antigens in EmP for E. multilocularis infection were 73%, 88% and 93%, respectively. Recognition of the 17.5-kDa antigen in the EmP immunoblot was much higher for the Japanese AE cases (11/13; 85%) than for the French (9/19; 47%) or Chinese (9/18; 50%) AE cases. None of the CE cases from Uruguay or Libya, where human AE has not been reported, was seropositive for the 17.5-kDa antigen. Antibodies from three (7.3%) of the

41 Chinese CE cases recognized the 17.5-kDa antigen. Within the 13 Japanese AE sera, the combined detection by IgG(1), IgG(4) and total-IgG antibodies of the 27-, 21- and 17.5-kDa antigens in either EmP or EmCH immunoblots was greater than that by each class/subclass alone, increasing the overall sensitivity for AE patients.

A combined ELISA/immunoblot approach, including IgG-subclass detection using *E. multilocularis* proteolysate or cyst extracts, could be useful for the differential diagnosis of human alveolar echinococcosis. An algorithm for such an approach is given.

4/3,AB/20 (Item 20 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)
(c) 2004 Inst for Sci Info. All rts. reserv.

06111182 References: 26

TITLE: USE OF ENZYME-LINKED IMMUNOSORBENT ASSAY AND ENZYME-LINKED IMMUNOELECTROTRANSFER BLOT FOR THE DIAGNOSIS AND MONITORING OF NEUROCYSTICERCOSIS

AUTHOR(S): SIMAC C; MICHEL P; ANDRIANTSIMAHAVANDY A; ESTERRE P; MICHAULT A
CORPORATE SOURCE: INST PASTEUR MADAGASCAR, PARASITOL

UNIT/ANTANANARIVO//MALAGASY REPUBL/
PUBLICATION: PARASITOLOGY RESEARCH, 1995, V81, N2 (JAN), P132-136
GENUINE ARTICLE#: QD227
ISSN: 0044-3255
LANGUAGE: ENGLISH DOCUMENT TYPE: ARTICLE

ABSTRACT: A total of 70 proven cases of neurocysticercosis from la Reunion (Indian Ocean) were studied with enzyme-linked immunoassay (ELISA) and immunoelectrotransfer blot (EITB) to detect specific antibodies in serum and cerebrospinal fluid (CSF). Absorbance levels of antibody to crude *Taenia solium* cyst extract as an antigen were compared with EITB banding-pattern and computed tomography-scan results. The EITB analysis of sera and CSF from patients with active neurocysticercosis, confirmed with characteristic brain-scan imaging and highest ELISA absorbance, regularly revealed two bands with molecular weights of 13 and 14 kDa, respectively. These low-molecular-weight fractions are potential markers of active cerebral cysticercosis, a result obtained in the simple epidemiological situation of La Reunion (Indian Ocean). A parallel study is underway in Madagascar, where cross-reactivities with other parasitic diseases, including *Schistosoma* infections, may interfere.

4/3,AB/21 (Item 21 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)
(c) 2004 Inst for Sci Info. All rts. reserv.

06047630 References: 25

TITLE: IMMUNIZATION AGAINST TAENIA CRASSICEPS CYSTICERCOSIS - IDENTIFICATION OF THE MOST PROMISING ANTIGENS IN THE INDUCTION OF PROTECTIVE IMMUNITY

AUTHOR(S): VALDEZ F; HERNANDEZ M; GOVEZENSKY T; FRAGOSO G; SCIUTTO E
CORPORATE SOURCE: NATL AUTONOMOUS UNIV MEXICO, INST INVEST BIOMED, DEPT IMMUNOL/MEXICO CITY 04510/DF/MEXICO/ (Reprint)
PUBLICATION: JOURNAL OF PARASITOLOGY, 1994, V80, N6 (DEC), P931-936

GENUINE ARTICLE#: PZ737

ISSN: 0022-3395

LANGUAGE: ENGLISH DOCUMENT TYPE: ARTICLE

ABSTRACT: Cross immunity between *Taenia solium* and *Taenia crassiceps* parasites points to *T. crassiceps* cysticercosis as a convenient model to test promising antigens aimed at the development of a vaccine against *T. solium* cysticercosis. Since total antigens from *T. crassiceps* metacestodes induce significant levels of protection in pigs against *T. solium* cysticercosis, we initiated this work to identify the most interesting antigens involved in protection. Twelve different antigen fractions isolated from *T. crassiceps* cysticerci were evaluated with respect to their capacity to induce resistance against a challenge with 10 *T. crassiceps* cysticerci in male BALB/cAnN mice. Mice were intraperitoneally immunized with 2 doses of each antigen, 5 or 15 μ g per mouse. The 12 antigen fractions were classified as protecting (200, 123, 74, 66, 56, 40-50, 27, and 8-14 kDa), facilitating (220-205 kDa), or irrelevant (150-160, 93, 108 kDa), according to their effect on the parasite load. The 3 most promising antigen fractions were reevaluated via subcutaneous immunization with Freund's complete adjuvant. A high level of protection was obtained when antigen fractions of 56, 66, and 74 kDa were used together. Interestingly, antigens with similar molecular weights were also detected in early steps of differentiation in *T. solium* cysticercosis. These observations may be helpful in the development of a synthetic or a recombinant vaccine against cysticercosis.

4/3,AB/22 (Item 1 from file: 348)

DIALOG(R) File 348:EUROPEAN PATENTS

(c) 2004 European Patent Office. All rts. reserv.

00965352

NOVEL DNA, NOVEL PROTEIN, AND NOVEL ANTIBODY

NEUE DNA, NEUES PROTEIN, NEUER ANTIKORPER

NOUVEL ADN, NOUVELLE PROTEINE ET NOUVEL ANTICORPS

PATENT ASSIGNEE:

KYOWA HAKKO KOGYO CO., Ltd., (229066), 6-1, Ohtemachi 1-chome,

Chiyoda-ku, Tokyo 100, (JP), (Applicant designated States: all)

INVENTOR:

YOSHISUE, Hajime, 4-17-17, Morino, Machida-shi, Tokyo 194, (JP)

SAITO, Akiko, 1-3-12-205, Naka-machi, Machida-shi, Tokyo 194, (JP)

NAKAGAWA, Satoshi, 3-9-9, Naka-machi, Machida-shi, Tokyo 194, (JP)

KUGA, Tetsuro, 3-9-13, Naka-machi, Machida-shi, Tokyo 194, (JP)

SHINKAI, Akeo, 3-9-11, Naka-machi, Machida-shi, Tokyo 194, (JP)

KOIKE, Masamichi, 3-9-13, Naka-machi, Machida-shi, Tokyo 194, (JP)

NISHI, Tatsunari, 39-15, Higashimine-machi, Ohta-ku, Tokyo 145, (JP)

LEGAL REPRESENTATIVE:

VOSSIUS & PARTNER (100314), Siebertstrasse 4, 81675 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 949271 A1 991013 (Basic)

WO 9824817 980611

APPLICATION (CC, No, Date): EP 97946126 971205; WO 97JP4470 971205

PRIORITY (CC, No, Date): JP 96325762 961205

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE

INTERNATIONAL PATENT CLASS: C07K-014/54; C12N-015/24; C12N-005/10;

C12N-005/20; C07K-016/24; G01N-033/577; G01N-033/50; A61K-039/00;

10/048146

A61K-038/19; C12Q-001/68; C12Q-001/04; C12P-021/08; C12P-021/02;
C12N-015/06

ABSTRACT EP 949271 A1

A novel protein capable of activating eosinophile cells; a DNA or oligonucleotides encoding this protein; a recombinant vector containing this DNA; a transformant containing this recombinant vector; a process for producing the above protein by using this transformant; a cell reacting specifically with the above protein; a cell membrane or a receptor binding specifically to the above protein; an agonist or an antagonist to the protein; an antibody binding specifically to the protein; and remedies or diagnostic methods with the use of the same for allergic inflammation, eosinophilic pneumonia, sudden eosinophilia, autoimmune disease, malignant tumor, or vermination.

ABSTRACT WORD COUNT: 98

LANGUAGE (Publication,Procedural,Application): English; English; Japanese
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	9941	1486
SPEC A	(English)	9941	20450
Total word count - document A			21936
Total word count - document B			0
Total word count - documents A + B			21936

4/3,AB/23 (Item 2 from file: 348)

DIALOG(R) File 348:EUROPEAN PATENTS

(c) 2004 European Patent Office. All rts. reserv.

00958290

MORPHOGEN PEPTIDE-INDUCED REGENERATION OF SENSE PERCEPTORY TISSUES
DIE VON MORPHOGENEN PEPTIDEN HERVORGERUFENE WIEDERHERSTELLUNG VON GEWEBE
AUS SINNESZELLEN

REGENERATION INDUITE PAR PEPTIDE MORPHOGENE DE TISSUS PERCEPTO-SENSORIELS
PATENT ASSIGNEE:

Curis, Inc., (3218792), 45 Moulton Street, Cambridge, MA 02198, (US),
(Proprietor designated states: all)

INVENTOR:

SAMPATH, Kuber, 98 Pamela Drive, Holliston, MA 01746, (US)
RUEGER, David, C., 81 Pine Hill Road, Southborough, MA 01772, (US)
COHEN, Charles, M., 1 Harrington Lane, Weston, MA 02139, (US)
CHARETTE, Marc, F., 17 Ellicolt Street, Needham, MA 02192, (US)
JIN, Donald, F., 9 Nightingale Drive, Shrewsbury, MA 01545, (US)

LEGAL REPRESENTATIVE:

Price, Vincent Andrew et al (79513), Fry Heath & Spence LLP The Gables
Massetts Road, Horley Surrey RH6 7DQ, (GB)

PATENT (CC, No, Kind, Date): EP 956038 A1 991117 (Basic)
EP 956038 B1 030326
WO 98020890 980522

APPLICATION (CC, No, Date): EP 97948274 971114; WO 97US20743 971114

PRIORITY (CC, No, Date): US 751227 961115

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU;
MC; NL; PT; SE

INTERNATIONAL PATENT CLASS: A61K-038/18; A61P-027/00

NOTE:

Searcher : Shears 571-272-2528

No A-document published by EPO
 LANGUAGE (Publication,Procedural,Application): English; English; English
 FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200313	1534
CLAIMS B	(German)	200313	1520
CLAIMS B	(French)	200313	1977
SPEC B	(English)	200313	20744
Total word count - document A			0
Total word count - document B			25775
Total word count - documents A + B			25775

4/3,AB/24 (Item 3 from file: 348)
 DIALOG(R)File 348:EUROPEAN PATENTS
 (c) 2004 European Patent Office. All rts. reserv.

00724155

ANTIGENS PROTECTIVE AGAINST (ECHINOCOCCUS GRANULOSUS) INFECTION AND
 VACCINES CONTAINING SUCH ANTIGENS
 SCHUTZENDE ANTIGENE GEGEN EINE (ECHINOCOCCUS GRANULOSUS) INFEKTION UND
 IMPFSTOFFE DIE ENTSPRECHENDE ANTIGENE ENTHALTEN
 ANTIGENES PROTECTEURS CONTRE L'INFECTION PAR ECHINOCOCCUS GRANULOSUS ET
 VACCINS CONTENANT DE TELS ANTIGENES

PATENT ASSIGNEE:

NEW ZEALAND PASTORAL AGRICULTURE RESEARCH INSTITUTE LIMITED, (1694770),
 Peat Marwick Tower, 85 Alexandra Street, Hamilton, (NZ), (Proprietor
 designated states: all)

THE UNIVERSITY OF MELBOURNE, (202599), Grattan Street, Parkville,
 Victoria 3052, (AU), (Proprietor designated states: all)

INVENTOR:

HEATH, David Duncan, 76 Paremata Road, Ivey Bay, Paremata, (NZ)
 LAWRENCE, Stephen, Bruce, 94 Plateau Road, Upper Hutt, (NZ)
 RALSTON, Mark, John, 106 Avro Road, RD 1, Upper Hutt, (NZ)
 MAASS, David Richard, 5 Latham Road, York Bay, Wellington, (NZ)
 LIGHTOWLERS, Marshall, William, 176 Osbourne Street, Williamstown, VIC,
 (AU)

LEGAL REPRESENTATIVE:

Armitage, Ian Michael et al (27761), MEWBURN ELLIS York House 23 Kingsway
 , London WC2B 6HP, (GB)

PATENT (CC, No, Kind, Date): EP 629131 A1 951129 (Basic)
 EP 629131 B1 010627
 WO 9316722 930902

APPLICATION (CC, No, Date): EP 93905659 930222; WO 93NZ7 930222

PRIORITY (CC, No, Date): NZ 24168892 920221

DESIGNATED STATES: DE; ES; FR; GB; IT; PT

INTERNATIONAL PATENT CLASS: C12N-015/12; C12N-001/21; C12N-015/70;
 C12N-015/79; C12N-007/01; C07K-014/435; A61K-039/00; A61K-039/395;
 C12Q-001/68

NOTE:

No A-document published by EPO
 LANGUAGE (Publication,Procedural,Application): English; English; English
 FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200126	924
CLAIMS B	(German)	200126	870

10/048146

CLAIMS B	(French)	200126	956
SPEC B	(English)	200126	9790
Total word count - document A			0
Total word count - document B			12540
Total word count - documents A + B			12540

4/3,AB/25 (Item 4 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2004 European Patent Office. All rts. reserv.

00681396

A 3 ADENOSINE RECEPTOR AGONISTS
A3 -ADENOSIN -REZEPTOR AGONISTEN
AGONISTES DU RECEPTEUR DE L'ADENOSINE A 3

PATENT ASSIGNEE:

THE UNITED STATES OF AMERICA, as represented by THE SECRETARY, Department of Health and Human Services, (1861303), National Institutes of Health, Office of Technology Transfer, Box OTT, Bethesda, MD 20892-9902, (US), (Proprietor designated states: all)

INVENTOR:

JACOBSON, Kenneth, A., 116506 Fulham Street, Silver Spring, MD 20902, (US)
GALLO-RODRIGUEZ, Carola, Avenue Santa Fe 2533 8oA, RA-1425 Buenos Aires, (AR)
VAN GALEN, Philip, J., M., Titus Brandsmaplein 40, NL-5342 EP Oss, (NL)
VON LUBITZ, Dag, K., J., E., 6329 Dorset Drive, Alexandria, VA 22310, (US)
JEONG, Heaok, Kim, c/o Prof. Lak-Shin Jeong, 11 Daehyun-dong, Seodaemun-ku, College of Pharmacy, Ehwa Women's University; Seoul 120-750, (KR)

LEGAL REPRESENTATIVE:

Walton, Sean Malcolm et al (77071), MEWBURN ELLIS, York House, 23 Kingsway, London WC2B 6HP, (GB)

PATENT (CC, No, Kind, Date): EP 708781 A1 960501 (Basic)
EP 708781 B1 011004
WO 9502604 950126

APPLICATION (CC, No, Date): EP 94923445 940713; WO 94US7835 940713

PRIORITY (CC, No, Date): US 91109 930713; US 163324 931206

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE

INTERNATIONAL PATENT CLASS: C07H-019/167; A61K-031/70

NOTE:

No A-document published by EPO

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200140	2214
CLAIMS B	(German)	200140	2047
CLAIMS B	(French)	200140	2264
SPEC B	(English)	200140	33280
Total word count - document A			0
Total word count - document B			39805
Total word count - documents A + B			39805

Searcher : Shears 571-272-2528

10/048146

4/3,AB/26 (Item 5 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2004 European Patent Office. All rts. reserv.

00444570

EXCRETORY/SECRETORY ANTIGENS OF **TAPEWORM** (CYSTICERCUS CELLULOSAE) FOR
USE IN IMMUNODIAGNOSIS AND VACCINE PREPARATION
EXKRETORISCHE/SEKRETORISCHE ANTIGENE DES BANDWURMS (CYSTICERCUS CELLULOSAE)
ZUR VERWENDUNG IN DER IMMUNDIAGNOSTIK UND DER IMPFSTOFFBEREITUNG
ANTIGENES EXCRETOIRES/SECRETOIRES DU TENIA (CYSTICERCUS CELLULOSAE)
DESTINES A ETRE UTILISES DANS DES IMMUNO-DIAGNOSTICS ET DANS LA
PREPARATION DE VACCINS

PATENT ASSIGNEE:

Astra Aktiebolag, (699185), , S-151 85 Sodertalje, (SE), (applicant
designated states: AT;BE;CH;DE;DK;ES;FR;GB;IT;LI;LU;NL;SE)

INVENTOR:

RAVI KUMAR, B., V. Site 111, Block A, First Floor, CIL Employees Housing
Building Co-op. Society Ltd., Colony Sanjaynagar Bangalore-560024, (IN)
SURYANARAYANA, V., No. 14/1, 13th Cross 8th Main, Malleswaram,
Bangalore-560003, (IN)
RAVI, V., 24, First Cross Street East Shenoy Nagar, Madras-600030, (IN)
CHANDRAMUKHI, A., 526, 11th Main V Block, Jayanagar Bangalore-560011,
(IN)

LEGAL REPRESENTATIVE:

Hjertman, Ivan T. et al (23141), AB ASTRA Patent and Trade Mark
Department, S-151 85 Sodertalje, (SE)

PATENT (CC, No, Kind, Date): EP 456686 A1 911121 (Basic)
EP 456686 B1 960320
WO 9008958 900809

APPLICATION (CC, No, Date): EP 90902417 900116; WO 90SE34 900116

PRIORITY (CC, No, Date): SE 89243 890124

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; IT; LI; LU; NL; SE

INTERNATIONAL PATENT CLASS: G01N-033/569; A61K-039/002; C12P-021/00;

NOTE:

No A-document published by EPO

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	EPAB96	693
CLAIMS B	(German)	EPAB96	655
CLAIMS B	(French)	EPAB96	773
SPEC B	(English)	EPAB96	4073
Total word count - document A			0
Total word count - document B			6194
Total word count - documents A + B			6194

Set	Items	Description
S5	326	AU=(TSANG, V? OR TSANG V?)
S6	2258	AU=(GREENE, R? OR GREENE R?)
S7	344	AU=(WILKINS, P? OR WILKINS P?)
S8	214	AU=(HANCOCK, K? OR HANCOCK K?)
S9	5	S5 AND S6 AND S7 AND S8
S10	47	S5 AND (S6 OR S7 OR S8)
S11	11	S6 AND (S7 OR S8)
S12	6	S7 AND S8
S13	87	(S1 OR S5 OR S6 OR S7 OR S8) AND (SOLIUM OR TAPEWORM? ? OR

- Author (S)

Searcher : Shears 571-272-2528

TAPE(W)WORM? ?)

S16 7 S13 AND (S1 OR S2)
 S17 8 (S9 OR S11 OR S12 OR S16) NOT S3
 S18 6 RD (unique items)
 >>>No matching display code(s) found in file(s): 65, 113

18/3,AB/1 (Item 1 from file: 65)
 DIALOG(R)File 65:Inside Conferences
 (c) 2004 BLDSC all rts. reserv. All rts. reserv.

03879442 INSIDE CONFERENCE ITEM ID: CN040776795
 THE 8-kDa DIAGNOSTIC ANTIGENS OF TAENIA SOLIUM

Hancock, K.; Khan, A.; Pieniazek, N. J.; Wilkins, P. P.;
Tsang, V. C.

CONFERENCE: American Society of Tropical Medicine and Hygiene-Annual
 meeting; 50th
 AMERICAN JOURNAL OF TROPICAL MEDICINE AND HYGIENE, 2001; VOL 65; NO 3;
 SUPPL P: 389
 American Society of Tropical Medicine and Hygiene, 2001
 LANGUAGE: English DOCUMENT TYPE: Conference Preprinted abstracts and
 programme
 CONFERENCE SPONSOR: American Society of Tropical Medicine and Hygiene
 CONFERENCE LOCATION: Atlanta, GA 2001; Nov (200111) (200111)

18/3,AB/2 (Item 2 from file: 65)
 DIALOG(R)File 65:Inside Conferences
 (c) 2004 BLDSC all rts. reserv. All rts. reserv.

02044290 INSIDE CONFERENCE ITEM ID: CN021374024
 Purification and Characterization of Taenia Solium Diagnostic Glycoprotein
 Antigens

Greene, R. M.; Tsang, V. C.; Wilkins, P. P.
 CONFERENCE: American Society of Tropical Medicine and Hygiene-Annual
 meeting; 46th
 AMERICAN JOURNAL OF TROPICAL MEDICINE AND HYGIENE, 1997; VOL 57; NUMBER 3
 ; SUPP 1 P: 62
 (np), 1997
 LANGUAGE: English DOCUMENT TYPE: Conference Preprinted abstracts and
 programme
 CONFERENCE SPONSOR: American Society of Tropical Medicine and Hygiene
 CONFERENCE LOCATION: Lake Buena Vista, FL
 CONFERENCE DATE: Dec 1997 (199712) (199712)

18/3,AB/3 (Item 1 from file: 440)
 DIALOG(R)File 440:Current Contents Search(R)
 (c) 2004 Inst for Sci Info. All rts. reserv.

17680464 Document Delivery Available: 000187807000012 References: 50
 TITLE: Characterization and cloning of GP50, a Taenia solium antigen
 diagnostic for cysticercosis
 AUTHOR(S): **Hancock K (REPRINT); Pattabhi S; Greene RM; Yushak**
ML; Williams F; Khan A; Priest JW; Levine MZ; Tsang VCW
 AUTHOR(S) E-MAIL: khancock@cdc.gov

10/048146

CORPORATE SOURCE: Ctr Dis Control & Prevent, Div Parasit Dis, Bldg 23, Room 1001, Mail Stop F-13, 4770 Buford Highway/Atlanta//GA/30341 (REPRINT); Ctr Dis Control & Prevent, Div Parasit Dis, /Atlanta//GA/30341; Univ Illinois, Dept Otolaryngol Head & Neck Surg, /Chicago//IL/60612; Temple Univ, Dept Microbiol & Immunol, /Philadelphia//PA/19140

PUBLICATION TYPE: JOURNAL

PUBLICATION: MOLECULAR AND BIOCHEMICAL PARASITOLOGY, 2004, V133, N1 (JAN), P115-124

GENUINE ARTICLE#: 760JC

PUBLISHER: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS

ISSN: 0166-6851

LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: GP50, a *Taenia solium* protein diagnostic for cysticercosis has been cloned, sequenced, and characterized. GP50 is one diagnostic component of the lentil lectin purified glycoprotein (LLGP) antigens that have been used for antibody-based diagnosis of cysticercosis in a Western blot assay for nearly 15 years. GP50 is a glycosylated and GPI-anchored membrane protein. The native protein migrates at 50 kDa, but the predicted molecular weight of the mature protein is 28.9. Antigenically active recombinant GP50 has been expressed in a baculovirus expression system. The antigenic activity of both the native and recombinant proteins is dependent upon the correct formation of disulfide bonds. GP50, purified from cysticerci, has two homologs expressed in the adult worm, TSES33 and TSES38. Both are diagnostic for taeniasis. In spite of the amino acid similarities between GP50 and the TSES proteins, each appears to be a stage-specific antigen. A preliminary evaluation of recombinant GP50 in a Western blot assay showed 100% specificity for cysticercosis and 90% sensitivity for cysticercosis positive serum samples reactive with the GP50 component of LLGP. (C) 2003 Elsevier B.V. All rights reserved.

18/3,AB/4 (Item 1 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

(c) 2004 European Patent Office. All rts. reserv.

01365909

METHODS AND COMPOSITIONS FOR DETECTING LARVAL TAENIA SOLIUM WITH A CLONED DIAGNOSTIC ANTIGEN

VERFAHREN UND ZUSAMMENSETZUNGEN ZUM NACHWEIS VON TAENIA SOLIUM LARVEN MITTELS EINES KLONIERTEN ANTIGENS

METHODES ET COMPOSITIONS POUR LA DETECTION DE TAENIA SOLIUM LARVAIRE AU MOYEN D'UN ANTIGENE DIAGNOSTIQUE CLONE

PATENT ASSIGNEE:

THE GOVERNMENT OF THE USA represented by THE DEPARTMENT OF HEALTH AND HUMAN SERVICES CENTERS FOR DISEASE CONTROL & PREVENTION, (1738224), 4770 Buford Highway(K79),, Atlanta, GA 30341, (US), (Applicant designated States: all)

INVENTOR:

TSANG, Victor, C., W., 2595 Oak Crossing Drive, Decatur, GA 30033, (US)

GREENE, Ryan M., 5303 Hamilton Wolfe Road, Apartment 1009, San Antonio, TX78229, (US)

WILKINS, Patricia, P., 5608 Hidden Harbor Drive, Gainesville, GA 30504, (US)

HANCOCK, Kathy, 1488 Los Amanda Circle, Atlanta, GA 30329, (US)

Searcher : Shears 571-272-2528

LEGAL REPRESENTATIVE:

Gowshall, Jonathan Vallance (61531), FORRESTER & BOEHMERT
 Pettenkoferstrasse 20-22, 80336 Munchen, (DE)
 PATENT (CC, No, Kind, Date): EP 1282822 A2 030212 (Basic)
 WO 2001075448 011011
 APPLICATION (CC, No, Date): EP 2001922947 010330; WO 2001US10392 010330
 PRIORITY (CC, No, Date): US 194418 P 000404
 DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
 LU; MC; NL; PT; SE; TR
 EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
 INTERNATIONAL PATENT CLASS: G01N-033/569
 NOTE:
 No A-document published by EPO
 LANGUAGE (Publication,Procedural,Application): English; English; English

18/3,AB/5 (Item 2 from file: 348)
 DIALOG(R)File 348:EUROPEAN PATENTS
 (c) 2004 European Patent Office. All rts. reserv.

01266342

METHODS AND COMPOSITIONS FOR DETECTING LARVAL i TAENIA SOLIUM /i
 VERFAHREN UND ZUSAMMENSETZUNGEN ZUR DETEKTION VON TAENIA SOLIUM LARVEN
 METHODES ET COMPOSITIONS DE DETECTION DE i TAENIA SOLIUM /i LARVAIRE
 PATENT ASSIGNEE:

The Government of the United States of America, as represented by the
 Secretary, Department of Health & Human Services, (3095390), Technology
 Transfer Office Centers for Disease Control and Prevention Executive
 Park Building 4 Suite 1103, M/S E-67, Atlanta, Georgia 30329, (US),
 (Applicant designated States: all)

INVENTOR:

TSANG, Victor, C., W., 2595 Oak Crossing Drive, Decatur, GA 30033,
 (US)
 GREENE, Ryan, M., 1 Sycamore Station, Decatur, GA 30030, (US)
 WILKINS, Patricia, P., 5608 Hidden Harbor Drive, Gainesville, GA
 30504, (US)
 HANCOCK, Kathy, 1488 N. Amanda Circle, Atlanta, GA 30329, (US)
 PATENT (CC, No, Kind, Date):
 WO 2001010897 010215
 APPLICATION (CC, No, Date): EP 2000955343 000803; WO 2000US21173 000803
 PRIORITY (CC, No, Date): US 147318 P 990805
 DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
 LU; MC; NL
 EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
 INTERNATIONAL PATENT CLASS: C07K-014/00
 LANGUAGE (Publication,Procedural,Application): English; English; English

18/3,AB/6 (Item 1 from file: 357)
 DIALOG(R)File 357:Derwent Biotech Res.
 (c) 2004 Thomson Derwent & ISI. All rts. reserv.

0279140 DBR Accession No.: 2002-03281 PATENT
 Synthetic immunoreactive gp50 polypeptides from the larva of pork tapeworm
 Taenia solium are useful to detect and immunize against T. solium
 infection causing cysticercosis and neurocysticercosis - recombinant

10/048146

Taenia solium gp50 protein useful as a vaccine for infection therapy
AUTHOR: Tsang V C W; Greene R M; Wilkins P P;
Hancock K

CORPORATE SOURCE: Atlanta, GA, USA.

PATENT ASSIGNEE: U.S.Govt.; U.S.Dep.Health-Hum.Serv.;

U.S.Cent.Dis.Contr.Prev.Atlanta 2001

PATENT NUMBER: WO 200175448 PATENT DATE: 20011011 WPI ACCESSION NO.:

2001-662984 (200176)

PRIORITY APPLIC. NO.: US 194418 APPLIC. DATE: 20000404

NATIONAL APPLIC. NO.: WO 2001US10392 APPLIC. DATE: 20010330

LANGUAGE: English

ABSTRACT: A synthetic larval Taenia solium polypeptide (I), immunoreactive with T. solium larval gp50 antibodies or an antigenic fragment or analog of that polypeptide, is new. Also claimed are: an isolated nucleic acid; a DNA probe for detecting T. solium in a biological sample; detecting T. solium in a biological sample; and detecting T. solium antibodies in a biological sample. The polypeptide is used to diagnose a T. solium associated disease or condition in a mammal, particularly cysticercosis or neurocysticercosis and the nucleic acid encoding the synthetic immunoreactive polypeptide is used to immunize against T. solium infection (claimed). In an example, the coding regions for gp50a, gp50b and gp503 were subcloned into pBlueBac4.5/V5-His TOPO. Recombinant virus containing the gp50 sequence was formed by cotransfection of the transfer vector with Bac-N-Blue AcMNPV linear DNA in Sf9 insect cells. After purification of the recombinant virus, Sf9 cells were infected and harvested at 96 hours post-infection. (16pp)

? log y

25mar04 12:24:59 User219783 Session D2004.3

thioredoxin fusion proteins in *Escherichia coli*. The recombinant polypeptides reacted specifically in an immunoblot with pooled sera from individuals with confirmed cysticercosis, and did not react with cross-reactive echinococcosis sera, further indicating that these antigens may be important components of an assay based on synthetic antigens.

L8 ANSWER 22 OF 38 MEDLINE on STN DUPLICATE 14
 ACCESSION NUMBER: 1998313741 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 9650055
 TITLE: A *Taenia solium* oncosphere protein homologous to host-protective *Taenia ovis* and *Taenia saginata* 18 kDa antigens.
 AUTHOR: Gauci C G; Flisser A; Lightowlers M W
 CORPORATE SOURCE: Molecular Parasitology Laboratory, University of Melbourne, Werribee, Victoria, Australia..
 c.gauci@vet_science.unimelb.edu.au
 SOURCE: International journal for parasitology, (1998 May) 28 (5) 757-60.
 Journal code: 0314024. ISSN: 0020-7519.
 PUB. COUNTRY: ENGLAND: United Kingdom
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 OTHER SOURCE: GENBANK-AF017788
 ENTRY MONTH: 199808
 ENTRY DATE: Entered STN: 19980817
 Last Updated on STN: 19980817
 Entered Medline: 19980803

AB A *Taenia solium* cDNA (TSOL-18) encoding a protein with close homology to host protective oncosphere antigens from *Taenia ovis* (To18) and *Taenia saginata* (TSA-18) is described here. TSOL-18 was cloned from mRNA obtained from hatched and activated oncospheres of *T. solium*. The high level of predicted amino acid sequence homology among TSOL-18 and other host protective taeniid antigens suggests that the protein expressed by TSOL-18 may be capable of being used as a vaccine against *T. solium* infection in the parasite's intermediate hosts.

L8 ANSWER 23 OF 38 MEDLINE on STN DUPLICATE 15
 ACCESSION NUMBER: 1998358905 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 9687596
 TITLE: Evaluation of excretory/secretory products of larval *Taenia solium* as diagnostic antigens for porcine and human cysticercosis.
 AUTHOR: Ko R C; Ng T F
 CORPORATE SOURCE: Department of Zoology, University of Hong Kong, China.. rcko@hkucc.hku.hk
 SOURCE: Journal of helminthology, (1998 Jun) 72 (2) 147-54.
 Journal code: 2985115R. ISSN: 0022-149X.
 PUB. COUNTRY: ENGLAND: United Kingdom
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199810
 ENTRY DATE: Entered STN: 19981029

Last Updated on STN: 19981029

Entered Medline: 19981019

AB Excretory/secretory antigens (ES) of larval *Taenia solium* were obtained by maintaining the bladder worms in Medium 199 for 3 days. Analysis by SDS-PAGE showed that ES antigens consisted of at least 19 polypeptides, with M(r) ranging from 14-116 kDa. Analytical isoelectric focusing revealed eight bands with acidic pI. An immunocytochemical study using the peroxidase method demonstrated the presence of ES epitopes on the tegument of the wall of the spiral canals of bladder worms. The specificity of ES antigens was evaluated by EITB, ELISA and FAST-ELISA using antisera against the common parasites of Chinese pigs and man. ES antigens cross-reacted with the antiserum against larval *T. hydatigena* of pigs. However, these antigens were generally more specific in diagnosing human cysticercosis. Three host-like molecules with molecular masses 43, 58 and 66 kDa were present in the ES products.

L8 ANSWER 24 OF 38 CABA COPYRIGHT 2004 CABI on STN

ACCESSION NUMBER: 1998:102065 CABA

DOCUMENT NUMBER: 19980804491

TITLE: Observations on several cysticercus antigens and its use in EITB for diagnosis of cysticercosis

AUTHOR: Qiu LiShu; Zhang YongHong; Xue HaiChou; Li Hao; Zhou HuiJuan; Chen ShenXia; Fu XingLi; Jiang BenQi; Shao ShiCai; Yang XinCheng; Qiu, L. S.; Zhang, Y. H.; Xue, H. C.; Li, H.; Zhou, H. J.; Chen, S. X.; Fu, X. L.; Jiang, B. Q.; Shao, S. C.; Yang, X. C.

CORPORATE SOURCE: Institute of Parasitic Diseases, CAPM, Shanghai 20025, China.

SOURCE: Chinese Journal of Schistosomiasis Control, (1998) Vol. 10, No. 1, pp. 29-32. 8 ref.

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 19980714

Last Updated on STN: 19980714

AB Five cysticercus (*Taenia solium* metacestode) antigens, comprising the 10 000 g whole supernatant, the 10 000 g cyst fluid supernatant, scoleces, whole cysts and urea-soluble scolex antigens, were analysed by SDS-PAGE. Coomassie blue staining revealed 10, 10, 13, 14 and 5 bands, respectively. Silver staining showed 20, 20, 21, 21 and 13 bands, respectively. The MW range was 6.6 to >116 kDa. Three antigens (100 000 g cyst fluid supernatant, whole cyst and urea-soluble scolex antigens) were subjected to an enzyme-linked immunoelectro-transfer blot (EITB) assay against 105 serum samples. The results showed that 1 to 13 bands ranging from <6.6 to >116 kDa were present with sera from cysticercosis patients. Taking the < 21.5 kDa bands as positive criteria, the positive rates of cyst fluid, whole cyst and urea-soluble scolex antigens were 54, 48 and 58%, respectively, and the false positive rates were 6, 10 and 0%, respectively. There was no cross reaction with sera from schistosomiasis, clonorchiasis and paragonimiasis patients. Two of 10 echinococcosis patients showed cross reaction with the

urea-soluble scolex antigen.

L8 ANSWER 25 OF 38 MEDLINE on STN DUPLICATE 16
 ACCESSION NUMBER: 1998056030 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 9394191
 TITLE: Basic and applied immunology in cestode infections:
 from Hymenolepis to Taenia and Echinococcus.
 AUTHOR: Ito A
 CORPORATE SOURCE: Department of Parasitology, Gifu University School of
 Medicine, Japan.
 SOURCE: International journal for parasitology, (1997 Oct) 27
 (10) 1203-11. Ref: 74
 Journal code: 0314024. ISSN: 0020-7519.
 PUB. COUNTRY: ENGLAND: United Kingdom
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 General Review; (REVIEW)
 (REVIEW, TUTORIAL)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199801
 ENTRY DATE: Entered STN: 19980130
 Last Updated on STN: 19980130
 Entered Medline: 19980121

AB In larval cestode infections, it is well established that the intermediate mammalian host infected with egg-derived metacestodes in the tissue becomes completely immune to reinfection with eggs, whereas autoinfection has been conceived to occur in Hymenolepis nana/mouse (and human) and Taenia solium/human systems when these hosts are initially infected with metacestode-derived adult tapeworms in the lumen. In this review paper, the first topic is immunobiology of H. nana/mouse system on the reinfection immunity in order to get critical information as to how the initially ingested parasite (eggs or metacestodes) can develop into adult worms and how autoinfection does or does not occur in immunocompetent mice, since H. nana can complete its whole life cycle in the mouse intestinal tissue and lumen. When mice are infected with eggs (= oncospheres) of H. nana, they become immune to challenge infections with eggs within a few days (early response) and with cysticercoids within two weeks (late response). The initially established adult worms are expelled later (worm expulsion response). When mice are infected with cysticercoids, either derived from beetles or mice, they become immune to challenge infection with cysticercoids but not with eggs. Therefore, autoinfection occurs in the intestinal tissue for the establishment of cysticercoids in the tissue but never occurs in the intestinal lumen for the establishment of adult worms in immunocompetent mice. The second topic is vaccination trial against challenge infection with eggs of Asian Taenia in pigs. Pigs vaccinated with frozen oncospheres of Asian Taenia from Taiwan or Korea or T. saginata showed very strong resistance, whereas pigs vaccinated with those of T. solium showed partial resistance only. It is suggested that Asian Taenia is much closer to T. saginata than T. solium from the immunobiological viewpoint. The third topic is immunodiagnosis of echinococcosis and cysticercosis. Immunoblot analysis has revealed that Em18 (18 kDa) component of crude antigens of Echinococcus multilocularis

protoscolex) and glycoproteins of *T. solium* cysticerci are highly specific or unique to alveolar echinococcosis and cysticercosis, respectively. The fourth topic is discussion on miscellaneous prospects including laboratory animal models for echinococcosis and cysticercosis.

L8 ANSWER 26 OF 38 MEDLINE on STN DUPLICATE 17
 ACCESSION NUMBER: 97049216 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 8893946
 TITLE: High prevalence of serological markers of cysticercosis among epileptic Malagasy children.
 AUTHOR: Grill J; Rakotomalala W; Andriantsimahavandy A; Boisier P; Guyon P; Roux J; Esterre P
 CORPORATE SOURCE: Department of Paediatrics, Soavinandriana Hospital, Antananarivo, Republic of Madagascar.
 SOURCE: Annals of tropical paediatrics, (1996 Sep) 16 (3) 185-91.
 Journal code: 8210625. ISSN: 0272-4936.
 PUB. COUNTRY: ENGLAND: United Kingdom
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199701
 ENTRY DATE: Entered STN: 19970219
 Last Updated on STN: 19970219
 Entered Medline: 19970122

AB Neurocysticercosis (i.e. cerebral localization of the metacestode larvae of *Taenia solium*) is believed to be a major cause of late onset epilepsy in non-Muslim developing countries. To define its role in childhood epilepsy in Madagascar, analysis of serological markers of cysticercosis was performed in 256 children with unexplained epilepsy and in 113 controls. Sera were considered positive when high titres in ELISA were present together with at least one of the bands 13, 14, 18, 21, 24 or 32 kD on Western blot. Altogether, 17.6% of the patients versus none of the controls were seropositive using these criteria. When analysing the bands of the Western blot, those of 13, 14 and 18 were significantly more frequently detected in sera of epileptic children than in sera of controls. Neurocysticercosis can be considered the main cause of secondary childhood epilepsy in our country, Madagascar being one of the most important foci in the world.

L8 ANSWER 27 OF 38 MEDLINE on STN DUPLICATE 18
 ACCESSION NUMBER: 96351096 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 8750683
 TITLE: Experimental *Taenia solium* cysticercosis in pigs: characteristics of the infection and antibody response.
 COMMENT: Erratum in: Vet Parasitol 1996 Sep 2;64(3):259
 AUTHOR: de Aluja A S; Villalobos A N; Plancarte A; Rodarte L F; Hernandez M; Sciutto E
 CORPORATE SOURCE: Facultad de Medicina Veterinaria y Zootecnia, Universidad Nacional Autonoma de Mexico (UNAM).
 SOURCE: Veterinary parasitology, (1996 Jan) 61 (1-2) 49-59.
 Journal code: 7602745. ISSN: 0304-4017.

10/048146

PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199610
ENTRY DATE: Entered STN: 19961025
Last Updated on STN: 19980206
Entered Medline: 19961017

AB Pigs were infected with taeniid eggs to study the susceptibility to infection and reinfection of the animals of mixed breeds and of different ages, the viability and death of the metacestodes in the host tissue, and the antibody response which accompanies these events. Sixteen pigs were infected with *Taenia solium* eggs for this purpose. At necropsy metacestodes were counted in 2 kg of shoulder muscles and classified as vesicular or caseous, and all the metacestodes in brains were counted and classified. The results show that pigs inoculated at 49 and 60 days of age became infected to different degrees and reacted differently to the presence of parasites. In the brain the metacestodes remain viable for longer periods than in muscles. Enzyme-linked immunosorbent assay (ELISA) showed a significant rise in antibodies after infection, which started to decrease 92 days post-infection (p.i.). Pigs with viable cysts remained seropositive up to the end of the experiment (281 days p.i.). Antibody levels rose further after reinfection or after treatment. The results of Western blot were comparable to those of ELISA. Antigens of 13, 14 and 18 kDa were most frequently recognized in early infections and then started to decrease 92 days p.i., while the antigens of 42, 50 and 24 kDa were recognized during later stages of infection (200 days p.i.). The results suggest that older animals are more resistant to the infection [corrected].

L8 ANSWER 28 OF 38 CABA COPYRIGHT 2004 CABI on STN

ACCESSION NUMBER: 97:145498 CABA
DOCUMENT NUMBER: 19970805695
TITLE: Characteristics of the immune response in ocular cysticercosis
Particularites de la reponse immune dans la cysticerose oculaire
AUTHOR: Andriantsimahavandy, A.; Esterre, P.; Auzemery, A.; Godinaud, P.
CORPORATE SOURCE: Unite de Parasitologie, Institut Pasteur de Madagascar, BP 1274, 101 Antananarivo, Madagascar.
SOURCE: Archives de l'Institut Pasteur de Madagascar, (1996) Vol. 63, No. 1/2, pp. 34-37. 19 ref. ISSN: 0020-2495
DOCUMENT TYPE: Journal
LANGUAGE: French
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 19971211
Last Updated on STN: 19971211

AB The immune response to ocular cysticercosis (inflammatory reaction, immune suppression caused by *Taenia solium* larval products) is reviewed. An enzyme-linked immunoelectrotransfer blot assay (EITB) and ELISA were used to analyse aqueous and vitreous

Searcher : Shears 571-272-2528

10/048146

humor samples and serum samples collected from 10 Malagasy patients. All the patients had ocular cysticercosis and attended the Centre Hospitalier de Soavinandriana, Madagascar. A 14 and 16 kDa band was detected in the humor samples in 5 and 6 patients, respectively.

L8 ANSWER 29 OF 38 CABA COPYRIGHT 2004 CABI on STN
ACCESSION NUMBER: 97:145497 CABA
DOCUMENT NUMBER: 19970805694
TITLE: Characteristics of the immune response in neurocysticercosis
Particularites de la reponse immune dans la neurocysticercose
AUTHOR: Andriantsimahavandy, A.; Esterre, Ph.; Michault, A.; Raobelison, A.; Guyon, P.; Chabrier, X.; Lapprand, M.
CORPORATE SOURCE: Unite de Parasitologie, Institut Pasteur de Madagascar, Antananarivo, Madagascar.
SOURCE: Archives de l'Institut Pasteur de Madagascar, (1996) Vol. 63, No. 1/2, pp. 31-33. 13 ref. ISSN: 0020-2495
DOCUMENT TYPE: Journal
LANGUAGE: French
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 19971211
Last Updated on STN: 19971211

AB The antigenic profiles of cerebrospinal fluid (CSF) and serum samples collected from 19 patients with simple or multiple neurocysticercosis were investigated using an enzyme-linked immunoelectrotransfer blot (EITB) and ELISA. The patients attended the Centre Hospitalaire de Soavinandriana, Madagascar. In 5 patients who displayed a normal immune response a 13 and/or 14 kDa band was always detected. No antibody response was detected the samples from 4 patients in which cysts were present. Antibodies were detected in one patient who presented without any neurological symptoms, and a further patient had a positive serum sample but a negative CSF sample.

L8 ANSWER 30 OF 38 MEDLINE on STN DUPLICATE 19
ACCESSION NUMBER: 96103616 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7495362
TITLE: Immunoblot evaluation of IgG and IgG-subclass antibody responses for immunodiagnosis of human alveolar echinococcosis.
AUTHOR: Wen H; Craig P S; Ito A; Vuitton D A; Bresson-Hadni S; Allan J C; Rogan M T; Paollilo E; Shambesh M
CORPORATE SOURCE: Department of Biological Sciences, University of Salford, U.K.
SOURCE: Annals of tropical medicine and parasitology, (1995 Oct) 89 (5) 485-95.
Journal code: 2985178R. ISSN: 0003-4983.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199601

Searcher : Shears 571-272-2528

10/048146

ENTRY DATE: Entered STN: 19960217
Last Updated on STN: 19960217
Entered Medline: 19960111

AB Antigen binding of total-IgG and IgG-subclass antibodies from patients with alveolar or cystic echinococcosis (AE and CE) was assessed by immunoblotting. Antigen extracts were prepared from *Echinococcus multilocularis* protoscoleces (EmP) or from homogenized *E. multilocularis* metacestode tissue (EmCH). Antigens of approximately 44, 35, 21, 17.5 and 16.5 were recognized by total-IgG and IgG1- and IgG4-subclass antibodies in some of 50 human AE sera from China, Japan or France. The 44- and 35-kDa polypeptides, present in both EmP and EmCH extracts, were recognized by total-IgG antibodies in sera from 82% and 66% of the AE patients, respectively. However, over 30% cross-reactivity occurred between these two antigens and sera from CE and *Taenia solium* cysticercosis patients. The immunoblot specificities of the 27-, 21- and 17.5-kDa antigens in EmP for *E. multilocularis* infection were 73%, 88% and 93%, respectively. Recognition of the 17.5-kDa antigen in the EmP immunoblot was much higher for the Japanese AE cases (11/13; 85%) than for the French (9/19; 47%) or Chinese (9/18; 50%) AE cases. None of the CE cases from Uruguay or Libya, where human AE has not been reported, was seropositive for the 17.5-kDa antigen. Antibodies from three (7.3%) of the 41 Chinese CE cases recognized the 17.5-kDa antigen. Within the 13 Japanese AE sera, the combined detection by IgG1, IgG4 and total-IgG antibodies of the 27-, 21- and 17.5-kDa antigens in either EmP or EmCH immunoblots was greater than that by each class/subclass alone, increasing the overall sensitivity for AE patients. A combined ELISA/immunoblot approach, including IgG-subclass detection using *E. multilocularis* protoscoleces or cyst extracts, could be useful for the differential diagnosis of human alveolar echinococcosis. An algorithm for such an approach is given.

L8 ANSWER 31 OF 38 MEDLINE on STN DUPLICATE 20
ACCESSION NUMBER: 95249490 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7731920
TITLE: Use of enzyme-linked immunosorbent assay and enzyme-linked immunoelectrotransfer blot for the diagnosis and monitoring of neurocysticercosis.
AUTHOR: Simac C; Michel P; Andriantsimahavandy A; Esterre P; Michault A
CORPORATE SOURCE: Department of Parasitology, Regional Hospital of Saint-Pierre, La Reunion.
SOURCE: Parasitology research, (1995) 81 (2) 132-6.
JOURNAL code: 8703571. ISSN: 0932-0113.
PUB. COUNTRY: GERMANY: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199506
ENTRY DATE: Entered STN: 19950608
Last Updated on STN: 19950608
Entered Medline: 19950601

AB A total of 70 proven cases of neurocysticercosis from la Reunion (Indian Ocean) were studied with enzyme-linked immunoassay (ELISA)

Searcher : Shears 571-272-2528

and immunoelectrotransfer blot (EITB) to detect specific antibodies in serum and cerebrospinal fluid (CSF). Absorbance levels of antibody to crude *Taenia solium* cyst extract as an antigen were compared with EITB banding-pattern and computed tomography-scan results. The EITB analysis of sera and CSF from patients with active neurocysticercosis, confirmed with characteristic brain-scan imaging and highest ELISA absorbance, regularly revealed two bands with molecular weights of 13 and 14 kDa, respectively. These low-molecular-weight fractions are potential markers of active cerebral cysticercosis, a result obtained in the simple epidemiological situation of La Reunion (Indian Ocean). A parallel study is underway in Madagascar, where cross-reactivities with other parasitic diseases, including *Schistosoma* infections, may interfere.

L8 ANSWER 32 OF 38 MEDLINE on STN DUPLICATE 21
 ACCESSION NUMBER: 95097105 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 7799166
 TITLE: Immunization against *Taenia crassiceps* cysticercosis: identification of the most promising antigens in the induction of protective immunity.
 AUTHOR: Valdez F; Hernandez M; Govezensky T; Fragoso G; Sciutto E
 CORPORATE SOURCE: Departamento de Inmunologia, Universidad Nacional Autonoma de Mexico, Mexico, D.F.
 SOURCE: Journal of parasitology, (1994 Dec) 80-(6) 931-6.
 Journal code: 7803124. ISSN: 0022-3395.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199501
 ENTRY DATE: Entered STN: 19950215
 Last Updated on STN: 19950215
 Entered Medline: 19950125
 AB Cross immunity between *Taenia solium* and *Taenia crassiceps* parasites points to *T. crassiceps* cysticercosis as a convenient model to test promising antigens aimed at the development of a vaccine against *T. solium* cysticercosis. Since total antigens from *T. crassiceps* metacestodes induce significant levels of protection in pigs against *T. solium* cysticercosis, we initiated this work to identify the most interesting antigens involved in protection. Twelve different antigen fractions isolated from *T. crassiceps* cysticerci were evaluated with respect to their capacity to induce resistance against a challenge with 10 *T. crassiceps* cysticerci in male BALB/cAnN mice. Mice were intraperitoneally immunized with 2 doses of each antigen, 5 or 15 micrograms per mouse. The 12 antigen fractions were classified as protecting (200, 123, 74, 66, 56, 40-50, 27 and 8-14 kDa), facilitating (220-205 kDa), or irrelevant (150-160, 93, 108 kDa), according to their effect on the parasite load. The 3 most promising antigen fractions were reevaluated via subcutaneous immunization with Freund's complete adjuvant. A high level of protection was obtained when antigen fractions of 56, 66, and 74 kDa were used together. Interestingly, antigens with similar molecular weights were also detected in early steps of

differentiation in *T. solium* cysticercosis. These observations may be helpful in the development of a synthetic or a recombinant vaccine against cysticercosis.

L8 ANSWER 33 OF 38 CABA COPYRIGHT 2004 CABI on STN
 ACCESSION NUMBER: 93:102998 CABA
 DOCUMENT NUMBER: 19930883642
 TITLE: Epidemiology of cysticercosis in Madagascar
 Epidemiologie de la cysticerose a Madagascar
 AUTHOR: Michel, P.; Callies, P.; Raharison, H.; Guyon, P.; Holvoet, L.; Genin, C.
 CORPORATE SOURCE: Unite de Recherches Immunologiques, Institut Pasteur, Tananarive, Madagascar.
 SOURCE: Bulletin de la Societe de Pathologie Exotique, (1993) Vol. 86, No. 1, pp. 62-67. 24 ref.
 DOCUMENT TYPE: Journal
 LANGUAGE: French
 SUMMARY LANGUAGE: English
 ENTRY DATE: Entered STN: 19941101
 Last Updated on STN: 19941101

AB The status of cysticercosis in Madagascar, based on serological and clinical studies is described. 249 (18%) of 1408 sera from adults without clinical neurological symptoms from 6 provinces of Madagascar were positive for cysticercosis in the ELISA. The seropositivity rate ranged from 8% in Manakara to 23% in Tananarive (Anatihazo). The highest positivity rates were recorded in regions where the rates of pig breeding are the highest for Madagascar. The clinical aspects of the diseases, based on the study of 266 cases observed in Tananarive are also considered. Among these patients, 223 (82%) sera recognized, in the Western Blot, protein bands with MWs of 14 000 to 20 000, indicative of active disease. 409 (36%) of 1132 sera of patients with a neurological syndrome tested using the ELISA were positive. Of 200 patients with active cysticercosis treated with praziquantel, 82% showed a good biological and/ or clinical response. It is concluded that the disease may be eradicated on the island only by a concerted action of veterinary and public health services.<new para>ADDITIONAL ABSTRACT:<new para>The status of cysticercosis in Madagascar, based on serological and clinical studies is described. 249 (18%) of 1408 sera from adults without clinical neurological symptoms from 6 provinces of Madagascar were positive for cysticercosis in the ELISA. The seropositivity rate ranged from 8% in Manakara to 23% in Tananarive (Anatihazo). The highest positivity rates were recorded in regions where the rates of pig breeding are the highest for Madagascar. The clinical aspects of the diseases, based on the study of 266 cases observed in Tananarive are also considered. Among these patients, 223 (82%) sera recognized, in the Western Blot, protein bands with MWs of 14 kDa to 20 kDa, indicative of active disease. 409 (36%) of 1132 sera of patients with a neurological syndrome tested using the ELISA were positive. Of 200 patients with active cysticercosis treated with praziquantel, 82% showed a good biological and/ or clinical response. It is concluded that the disease may be eradicated on the island only by a concerted action of veterinary and public health services.

L8 ANSWER 34 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on

STN
 ACCESSION NUMBER: 1993:141850 BIOSIS
 DOCUMENT NUMBER: PREV199395074650
 TITLE: Evaluation of western immunoblot assay in identification of neurocysticercosis specific antigen(s).
 AUTHOR(S): Vinayak, V. K. [Reprint author]; Kanwar, J. R.; Sawhney, I. M. S.; Chopra, J. S.
 CORPORATE SOURCE: Dep. Exp. Med., Postgraduate Inst. Med. Educ. Res., Chandigarh 160 012, India
 SOURCE: Immunology and Infectious Diseases (Oxford), (1992) Vol. 2, No. 4, pp. 281-285.
 CODEN: IINDEK. ISSN: 0959-4957.
 DOCUMENT TYPE: Article
 LANGUAGE: English
 ENTRY DATE: Entered STN: 16 Mar 1993
 Last Updated on STN: 16 Mar 1993

AB Antigenic analysis of crude sonicated extracts of cystwall, larvae or whole cyst on sodium dodecyl sulphate-polyacrylamide gel electrophoresis under reducing condition revealed identical pattern of polypeptides. By ELISA, sera from 16 (68%) of 20 neurocysticercosis cases had anti-cysticercus as well as anti-hydatid antibodies while 17 (85%) from hydatidosis, 6 (22%) of sera from patients of ascariasis, ancylostomiasis or hymenolepiasis, 8 (50%) of the sera from amoebic liver abscess patients and 1 (4%) of 25 serum from healthy controls also had anti-cysticercus antibodies. The demonstration of anti-cysticercus antibodies in sera appears to have no/limited clinical significance. Serum and CSF from all confirmed cases of neurocysticercosis cases recognised identical 15 polypeptides with molecular masses of 14, 30, 54, 62, 68, 75-116 and 125-260 kDa in Western immunoblot assay of whole cysticercus antigens. However, polypeptides with 14 and 30 kDa molecular masses were never recognized by any sera from hydatidosis, other helminthic infections, tuberculous meningitis or apparently healthy subjects. Thus, recognition of 14 and/or 30 kDa antigen(s) in Western immunoblot of sonicated extract of whole cysticerci by serum and CSF provide a specific diagnosis of neurocysticercosis.

L8 ANSWER 35 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

ACCESSION NUMBER: 1991:458386 BIOSIS
 DOCUMENT NUMBER: PREV199192103166; BA92:103166
 TITLE: SEPARATION OF COMPONENT PROTEINS IN CYSTIC FLUID OF TAENIA-SOLITUM METACESTODES BY GEL FILTRATION.
 AUTHOR(S): CHOI C-S [Reprint author]; KONG Y; KANG S-Y; CHO S-Y
 CORPORATE SOURCE: DEP PARASITOL, COLL MED, CHANG UNIV, SEOUL 156-756, KOREA
 SOURCE: Chung-Ang Journal of Medicine, (1990) Vol. 15, No. 4, pp. 319-328.
 CODEN: CJMEDQ. ISSN: 0253-6250.
 DOCUMENT TYPE: Article
 FILE SEGMENT: BA
 LANGUAGE: ENGLISH
 ENTRY DATE: Entered STN: 11 Oct 1991

Last Updated on STN: 11 Oct 1991

- AB Cystic fluid of *T. solium* metacestodes has been used as a diagnostic antigen for human cysticercosis. Because of cross-reactions with other parasitic infections especially with human hydatidosis sera, the nature of antigenic proteins in CF should be studied in more details. Hitherto, only a protein of 150 kDa in CF, structurally similar with antigen B in HF, has been known. The proteins in CF were separated into 7 fractions by filtration through Sephacryl S-300 Superfine. Of them, fraction I, III, and IV were major fractions. Fraction VII was considered as a degradation product and salts in eluent. MW of proteins in each fraction at their peak point was 860 kDa in fraction I, 386 kDa in fraction II, 134 kDa in fraction III, 42 kDa in fraction IV, 8.5 kDa in fraction V, and 7 kDa in fraction VI. By non-denaturing disc-PAGE of CF and its fractions, main protein band in fraction III was found to be band C protein while that in fraction IV was newly recognized band N, which dispersed between band U and band C and stained faintly. By analyzing the results of reducing and non-reducing SDS-PAGE of CF and its fractions, the 150 kDa protein in fraction III was confirmed to be composed of 3 subunits of 15, 10, and 7 kDa. Higher molecular weight proteins in fraction I and fraction II were subdivided into 94, 64, 39, and 26 kDa subunits. The most remarkable finding was that the protein in fraction IV showed 44-46 kDa and 21-26 kDa bands in non-reducing SDS-PAGE while it showed subunits of 21, 18, 15 and 10 kDa in reducing SDS-PAGE. And 64 kDa band was additionally found in reducing SDS-PAGE of fraction IV as well as in fraction I and fraction II. Further studies are necessary to find out the relationship of non-denatured proteins and their subunits especially in proteins in fraction I and fraction IV.

L8 ANSWER 36 OF 38 MEDLINE on STN DUPLICATE 22
 ACCESSION NUMBER: 91104651 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 1702989
 TITLE: Component proteins in cystic fluid of *Taenia solium* metacestodes collected surgically from neurocysticercosis patients.
 AUTHOR: Kong Y; Kang S Y; Cho S Y
 CORPORATE SOURCE: Department of Parasitology, College of Medicine, Chung-Ang University, Seoul, Korea.
 SOURCE: Kisaengch'unghak chapchi. Korean journal of parasitology, (1990 Jun) 28 (2) 101-8.
 Journal code: 0366132. ISSN: 0023-4001.
 PUB. COUNTRY: KOREA
 DOCUMENT TYPE: (CASE REPORTS)
 Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199102
 ENTRY DATE: Entered STN: 19910329
 Last Updated on STN: 19960129
 Entered Medline: 19910225

- AB Surgically collected cystic fluid of *Taenia solium* metacestodes from patients of intracranial cystic lesion were compared in their protein composition with those from naturally infected pigs in Cheju Do, Korea and Ecuador. In non-denaturing

discontinuous-polyacrylamide gel electrophoresis (disc-PAGE), no discernible differences were recognized in banding patterns between the cystic fluids from Cheju Do and Ecuador, and between the cystic fluids from pigs and human lesions except wider bands that corresponded to human albumin and gamma-globulin (in 4 of 9 patients). In reducing SDS-PAGE, bands in the cystic fluid from Ecuador showed the same banding pattern with that from Cheju Do but two bands of 21 and 17 kDa were stained darker.

Cystic fluids from patients revealed the same protein compositions of the major protein bands of 94, 64, 15, 10 and 7 kDa as in the cystic fluid of pig origin, but human albumin (66 kDa), heavy and light chains of gamma globulin (55 and 22.5 kDa) were contaminated in 4 of 9 cystic fluids. Human CSF proteins seem to have been contaminated during cystic fluid collection. In any cystic fluid from patients, the major protein component was 150 kDa which was subdivided into 15, 10 and 7 kDa in reducing SDS-PAGE.

L8 ANSWER 37 OF 38 TOXCENTER COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1990:111731 TOXCENTER
 COPYRIGHT: Copyright 2004 ACS
 DOCUMENT NUMBER: CA11201004084J
 TITLE: Isolation of diagnostic glycoprotein antigens to *Taenia solium*, and an immunoblot assay, method, and kit for the detection of human cysticercosis
 AUTHOR(S): Tsang, Victor C. W.; Brand, Joy A.; Boyer, Anne E.; Wilson, Marianna; Schantz, Peter M.; Maddison, Shirley E.
 CORPORATE SOURCE: ASSIGNEE: United States Dept. of Health and Human Services
 PATENT INFORMATION: US 292393 A0 15 Jun 1989
 SOURCE: (1989) U. S. Pat. Appl., 35 pp. Avail. NTIS Order No. PAT-APPL-7-292 393.
 CODEN: XAXXAV.
 COUNTRY: UNITED STATES
 DOCUMENT TYPE: Patent
 FILE SEGMENT: CAPLUS
 OTHER SOURCE: CAPLUS 1990:4084
 LANGUAGE: English
 ENTRY DATE: Entered STN: 20011116
 Last Updated on STN: 20021022
 AB A method for diagnosis of active human neurocysticercosis employs an immunoblot assay comprising detection of antibodies in human serum or cerebrospinal fluid. The antibodies are reacted with ≥ 1 *Taenia solium* larval antigen isolated by lentil-lectin affinity chromatog., ≥ 1 of the antigens being selected from glycoproteins of 13, 14, 18, 21, 24, 39-42, and 50 kilodalton mol. weight. A kit used in the diagnosis is also provided. Glycoprotein antigens were isolated from a homogenate of *T. solium* cysts treated with urea and freon and purified with lentil-lectin-Sepharose 4B chromatog. The antigens were further treated with SDS and antigen concentration optimized by SDS-PAGE, immunoblotting, and exposure to normal serum and *T. solium*, and Echinococcus antiserum pools. Following a standard development procedure, the concentration which yielded all 7 clear diagnostic bands with *T. solium* antisera and min. cross-reactive bands, if

any, with the other 2 antigens, was selected as optimum antigen concentration. A western blot immunoassay using the above diagnostic glycoprotein antigens for *T. solium* antibody detection in serum or cerebrospinal fluid was developed. With respect to band recognition frequencies and patterns, the 24 and 42 kilodalton glycoprotein bands were the most commonly recognized antigens among cysticercosis patients. Almost all patients react to >1 of the diagnostic bands, >50% reacted to ≥6 of 7 bands, and almost 40% of patients recognized all 7 of the diagnostic glycoproteins. The Western blot assay of the invention had 100% specificity and 98% sensitivity, based on results of all specimens tested from cysticercosis, heterologous infection, and control cases.

L8 ANSWER 38 OF 38 MEDLINE on STN DUPLICATE 23
 ACCESSION NUMBER: 85002673 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 6148176
 TITLE: A comparison of phlorizin and phloretin adsorption by the ~~tapeworm~~ *Hymenolepis diminuta*.
 AUTHOR: Lumsden R D; Murphy W A
 SOURCE: Comparative biochemistry and physiology. A, Comparative physiology, (1984) 79 (1) 137-41. Journal code: 1276312. ISSN: 0300-9629.
 PUB. COUNTRY: ENGLAND: United Kingdom
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 198411
 ENTRY DATE: Entered STN: 19900320
 Last Updated on STN: 19970203
 Entered Medline: 19841120

AB Phloretin and phlorizin adsorb to the tegument surface of *Hymenolepis diminuta*, with ~~KDs~~ of 2.39 mM and 14 .7 microM, respectively, and Vmaxs of 1446 and 12.54 nmoles/g tissue per 2 min, respectively. Phloretin adsorption is not inhibited by phlorizin or glucose. Glucose partially inhibits phlorizin adsorption. Phlorizin, but not phloretin, adsorption to isolated tegument brush border membrane preparations is partially inhibited by N-ethylmaleimide. No indications of phlorizin hydrolysis to phloretin during incubation with *H. diminuta* were obtained. The data are supportive of spatially separate and distinct binding sites for phloretin and phlorizin in the tegument brush border.

(FILE 'HCAPLUS, MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO, PHIC, PHIN, TOXCENTER, PASCAL, DISSABS, FEDRIP, CABA, AGRICOLA, VETU, VETB' ENTERED AT 12:10:36 ON 25 MAR 2004)

L9 1016 S "TSANG V"?/AU
 L10 5631 S "GREENE R"?/AU
 L11 938 S "WILKINS P"?/AU
 L12 723 S "HANCOCK K"?/AU
 L13 12 S L9 AND L10 AND L11 AND L12
 L14 160 S L9 AND (L10 OR L11 OR L12)
 L15 24 S L10 AND (L11 OR L12)
 L16 12 S L11 AND L12
 L17 282 S (L14 OR L15 OR L9 OR L10 OR L11 OR L12) AND (SOLIUM OR TAPE WORM OR TAPEWORM)
 L18 30 S L17 AND (L4 OR L5)

- Author (S)

L19 33 S L13 OR L16 OR L18
 L20 10 DUP REM L19 (23 DUPLICATES REMOVED)

L20 ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
 ACCESSION NUMBER: 2003:542653 HCAPLUS
 DOCUMENT NUMBER: 139:148143
 TITLE: Characterization of the 8-kilodalton antigens of
 Taenia solium metacestodes and
 evaluation of their use in an enzyme-linked
 immunosorbent assay for serodiagnosis
 AUTHOR(S): Hancock, Kathy; Khan, Azra; Williams,
 Fatima B.; Yushak, Melinda L.; Pattabhi, Sowmya;
 Noh, John; Tsang, Victor C. W.
 CORPORATE SOURCE: Division of Parasitic Diseases, Centers for
 Disease Control and Prevention, Atlanta, GA,
 30341, USA
 SOURCE: Journal of Clinical Microbiology (2003), 41(6),
 2577-2586
 CODEN: JCMIDW; ISSN: 0095-1137
 PUBLISHER: American Society for Microbiology
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB The Western blot for cysticercosis, which uses lentil lectin
 purified glycoprotein (LLGP) antigens extracted from the metacestode of
 Taenia solinm, has been the "gold standard" serodiagnostic assay since
 it was first described in 1989. The authors report that the
 diagnostic antigens at 14, 18, and 21
 kDa, as well as some larger disulfide-bonded antigens, are
 actually all members of a very closely related family of proteins,
 the 8-kDa antigens. The genes for 18 unique, mature proteins have
 been identified. Nine of these were chemical synthesized and tested in
 an ELISA with a battery of defined serum samples, including 32
 cysticercosis-pos. serum samples reactive with the 8-kDa antigens of
 LLGP on Western blotting, 34 serum samples from patients with other
 parasitic infections, and 15 normal human serum samples. One of the
 8-kDa antigens, TSRS1, is 100% sensitive and 100%
 specific. TSRS1 will be one component of a cocktail of
 three to four synthetic or recombinant antigens, based on the
 diagnostic bands of the Western blot, which will be used for the
 serodiagnosis of cysticercosis.

REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L20 ANSWER 2 OF 10 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on
 STN

ACCESSION NUMBER: 2002:585205 BIOSIS
 DOCUMENT NUMBER: PREV200200585205
 TITLE: Characterization of six proteins diagnostic for
 cysticercosis.
 AUTHOR(S): Hancock, K. [Reprint author]; Khan, A.
 [Reprint author]; Levine, M. Z. [Reprint author];
 Pattabhi, S. [Reprint author]; Yushak, M. [Reprint
 author]; Williams, F. [Reprint author]; Scheel, C. M.
 [Reprint author]; Tsang, V. C. W. [Reprint
 author]

CORPORATE SOURCE: Centers for Disease Control and Prevention, Atlanta, GA, USA

SOURCE: Abstracts of the General Meeting of the American Society for Microbiology, (2002) Vol. 102, pp. 127. print.
Meeting Info.: 102nd General Meeting of the American Society for Microbiology. Salt Lake City, UT, USA. May 19-23, 2002. American Society for Microbiology. ISSN: 1060-2011.

DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 13 Nov 2002
Last Updated on STN: 13 Nov 2002

AB The disease cysticercosis, caused by the larval form of *Taenia solium*, is endemic in all regions of the world where humans and pigs live in close contact. In Latin America alone, an estimated 400,000 people have symptomatic disease, typically neurologic symptoms due to parasites within the brain. Cysticercosis is diagnosed by detection of specific antibodies or by brain imaging techniques. The WHO/PAHO preferred immunologic assay for cysticercosis is our western blot using the lentil lectin bound fraction from urea solubilized larvae. Antibody reactivity with any one of six glycoproteins is diagnostic for cysticercosis. In order to develop a simple antibody detection assay for field use, we are characterizing, sequencing, cloning, and expressing the diagnostic proteins. The *T. solium* diagnostic proteins sort into three groups. The glycoproteins at 14, 18, and 21-kDa are all members of the 8-kDa diagnostic antigen family. These are secreted proteins with a mature size of 66 or 67 amino acids. To date, 31, 8-kDa antigen DNA sequences have been identified. These 31 sequences encode 18 unique, but very similar, proteins. By BLAST analysis, these proteins have been identified as members of a cestode-specific hydrophobic, ligand binding family. Eight of the 8-kDa antigens, representing each of the four clades in the family, have been chemically synthesized and evaluated for reactivity with antibodies in an ELISA. The proteins at 24 and 42-kDa are membrane proteins. Both extract into the detergent phase of Tx114 and both share a common N-terminal sequence. Further protein sequencing is underway. The protein at 50-kDa is also a membrane protein, shown to be GPI-anchored. While the proteins at 24/42 and 50 are distinct and fall into two groups, they share the common feature of requiring correct disulfide bond formation for antigenic activity. GP50 has been expressed, in active form, in an insect expression system and is being further evaluated. Our goal is to develop an antigen cocktail, probably consisting of one or more of the 8-kDa proteins, plus GP50, plus the 24 and/or 42-kDa proteins, which has a sensitivity of 98% and a specificity of 100%.

L20 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2

ACCESSION NUMBER: 2001:748119 HCAPLUS

DOCUMENT NUMBER: 135:302899

TITLE: Methods and compositions for detecting larval *Taenia solium* with a cloned diagnostic antigen

INVENTOR(S): Tsang, Victor C. W.; Greene,

Ryane M.; Wilkins, Patricia P.; Hancock, Kathy
PATENT ASSIGNEE(S): The Government of the United States of America,
as Represented by the Secretary, Department of
Health and Human Services, Centers for Disease
Control, USA
SOURCE: PCT Int. Appl., 31 pp.
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001075448	A2	20011011	WO 2001-US10392	20010330
WO 2001075448	A3	20020418		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG AU 2001049694 A5 20011015 AU 2001-49694 20010330 EP 1282822 A2 20030212 EP 2001-922947 20010330 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR BR 2001009871 A 20030603 BR 2001-9871 20010330 US 2004033540 A1 20040219 US 2003-240982 20030220 PRIORITY APPLN. INFO.: US 2000-194418P P 20000404 WO 2001-US10392 W 20010330 AB Compns. and methods for the detection of Taenia solium and the diagnosis of T. solium infection are described. The nucleotide and amino acid sequences of the antigenic T. solium polypeptides gp50a, gp50b and gp50c are provided. The compns. contain synthetic antigenic polypeptides of larval origin prepared using the sequences described herein. Probes and primers for the detection or amplification of T. solium nucleic acid mols. are also described. The polypeptides can be administered to a human or animal to protect against T. solium infection. In addition, the polypeptides are useful as research tools for studying T. solium and as reagents in assays for the detection of T. solium antibodies in a biol. sample. The methods are sensitive and specific assays that utilize the stable recombinant or synthetic antigenic polypeptides or nucleic acid mols. encoding the larval polypeptides. L20 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3 ACCESSION NUMBER: 2001:115179 HCAPLUS DOCUMENT NUMBER: 134:175260 TITLE: Methods and compositions for detecting larval Taenia solium				

10/048146

INVENTOR(S): Tsang, Victor C. W.; Greene, Ryan
M.; Wilkins, Patricia P.;
Hancock, Kathy
PATENT ASSIGNEE(S): Government of the United States of America as
represented by the Secretary, Department of
Health and Human Services, USA
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001010897	A2	20010215	WO 2000-US21173	20000803
WO 2001010897	A3	20010503		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
AU 2000067562	A5	20010305	AU 2000-67562	20000803
PRIORITY APPLN. INFO.:			US 1999-147318P P	19990805
			WO 2000-US21173 W	20000803

AB Compns. and methods for the detection of *Taenia solium* and the diagnosis and treatment of *T. solium* infection are described. The nucleotide and amino acid sequences of the antigenic polypeptides **TS-14**, **TS-18** and **TSRS-1** are provided. The compns. contain antigenic polypeptides of larval origin. The polypeptides are useful as research tools for studying *T. solium* and as reagents in assays for the detection of *T. solium* antibodies in a biol. sample. The methods are sensitive and specific assays that utilize the antigenic polypeptides or nucleic acid mols. encoding the larval polypeptides.

L20 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 2001:865925 HCAPLUS
DOCUMENT NUMBER: 136:260208
TITLE: Sequence variation in the cytochrome oxidase I, internal transcribed spacer 1, and **Ts14** diagnostic antigen sequences of *Taenia solium* isolates from South and Central America, India, and Asia
AUTHOR(S): Hancock, K.; Broughel, D. E.; Moura, I. N. S.; Khan, A.; Pieniazek, N. J.; Gonzalez, A. E.; Garcia, H. H.; Gilman, R. H.; Tsang, V. C. W.
CORPORATE SOURCE: Division of Parasitic Diseases, Centers for Disease Control and Prevention, Atlanta, GA,

Searcher : Shears 571-272-2528

10/048146

SOURCE: 30341, USA
International Journal for Parasitology (2001),
31(14), 1601-1607
CODEN: IJPYBT; ISSN: 0020-7519
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We examined the genetic variability in the pig-human tapeworm, *T. solium*, by sequencing the genes for cytochrome oxidase I, internal transcribed spacer 1, and a diagnostic antigen, **Ts14**, from individual cysts isolated from Peru, Colombia, Mexico, India, China, and the Philippines. For these genes, the rate of nucleotide variation was minimal. Isolates from these countries can be distinguished based on 1-8 nucleotide differences in the 396 nucleotide cytochrome oxidase I (COI) sequence. However, all of the 15 isolates from within Peru had identical COI sequences. The **Ts14** sequences from India and China were identical and differed from the Peru sequence by 3 nucleotides in 333. These data indicate that there is minimal genetic variability within the species *T. solium*. Minimal variability was also seen in the ITS1 sequence, but this variation was observed within the individual. Twenty-two cloned sequences from 6 isolates sorted into 13 unique sequences. The variability observed within the sequences from individual cysts was as great as the variability between the isolates.

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 6 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 5

ACCESSION NUMBER: 2000:787125 HCAPLUS
DOCUMENT NUMBER: 135:117702
TITLE: *Taenia solium*: Molecular cloning and serologic evaluation of 14- and 18-kDa related, diagnostic antigens
AUTHOR(S): Greene, Ryan M.; Hancock, Kathy; Wilkins, Patricia P.; Tsang, Victor C. W.
CORPORATE SOURCE: Department of Cellular Biology, University of Georgia, Athens, GA, USA
SOURCE: Journal of Parasitology (2000), 86(5), 1001-1007
CODEN: JOPAA2; ISSN: 0022-3395
PUBLISHER: American Society of Parasitologists
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We are attempting to design a simpler assay based on synthetic or recombinant antigens to replace the labor-intensive enzyme-linked immunoelectrotransfer blot (EITB-C), which is currently used to diagnose *Taenia solium* cysticercosis. From the lentil lectin-bound fraction of cyst glycoproteins (the LLGP fraction used in the EITB-C), we previously identified and purified 2 related polypeptides of 14- and 18-kDa that demonstrated diagnostic usefulness. Using degenerate oligonucleotide primers corresponding to amino acid sequences of these polypeptides and a cDNA library prepared from *T. solium*

Searcher : Shears 571-272-2528

cysticerci, we amplified cDNA clones that represent the **14** - and **18-kDa** polypeptides. These clones share sequence homol. at the nucleotide and amino acid levels. Synthetic polypeptides that represented the full-length, mature proteins (sTS14 and sTS18) were assessed for serol. potential using an ELISA. STS14, but not sTS18, demonstrated utility as a diagnostic antigen. STS14 was recognized by antibodies in a majority of the sera from patients with cysticercosis and none of the sera from persons with other helminth infections or uninfected human sera. Furthermore, polyclonal antibodies to sTS14 reacted with 6 discrete proteins present in the LLGP cyst fraction, suggesting that **TS14** is a subunit of other previously described antigens used for diagnosing cysticercosis.

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 6

ACCESSION NUMBER: 1999:320507 HCAPLUS

DOCUMENT NUMBER: 131:71424

TITLE: Diagnostic glycoproteins of *Taenia solium* cysts share homologous **14** - and **18-kDa** subunits

AUTHOR(S): Greene, Ryan M.; Wilkins, Patricia P.; Tsang, Victor C. W.

CORPORATE SOURCE: Department of Cellular Biology, University of Georgia, Athens, GA, USA

SOURCE: Molecular and Biochemical Parasitology (1999), 99(2), 257-261

CODEN: MBIPDP; ISSN: 0166-6851

PUBLISHER: Elsevier Science Ireland Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Lentil lectin-bound glycoprotein antigens (LL-GP) from *T. solium* larval cysts were purified by SDS-PAGE and reduced with DTT. All glycoprotein fractions between 20 and 50 kDa contained proteins that, when reduced, yielded both **14-** and **18-kDa** subunits; fractions >30 kDa also included a **21-kDa** subunit. The **14** - and **18-kDa** subunits showed considerable homol. in their N-terminal and internal amino acid sequences. Of human sera testing pos. for LL-GP in an enzyme-linked immunoelectrotransfer blot (EITB) test, 77% recognized the **14-kDa** subunit, including 100% of sera from parasite-confirmed cases; the **18-kDa** subunit was less immunoreactive and did not detect any cases that were not reactive with the **14-kDa** subunit. LL-GP-pos. sera which did not react with the **14-kDa** subunit reacted only with larger glycoproteins (24, 39-42, and 50 kDa). A diagnostic test incorporating both the **14-kDa** subunit and ≥ 1 of the larger glycoproteins would probably approach the sensitivity and specificity of the EITB, and might be adapted for use with synthetic or cloned antigens in an inexpensive, rapid, and simple assay.

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE

10/048146

IN THE RE FORMAT

L20 ANSWER 8 OF 10 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

ACCESSION NUMBER: 1999:477151 BIOSIS
DOCUMENT NUMBER: PREV199900477151
TITLE: Molecular cloning and serologic evaluation of *Taenia solium* diagnostic antigens.
AUTHOR(S): Greene, R. M. [Reprint author];
Wilkins, P. P.; Hancock, K.;
Tsang, V.C.W.
CORPORATE SOURCE: Division of Parasitic Diseases, Centers for Disease Control and Prevention, Atlanta, GA, USA
SOURCE: American Journal of Tropical Medicine and Hygiene, (Sept., 1999) Vol. 61, No. 3 SUPPL., pp. 178. print. Meeting Info.: 48th Annual Meeting of the American Society of Tropical Medicine and Hygiene. Washington, D.C., USA. November 28-December 2, 1999. American Society of Tropical Medicine and Hygiene. CODEN: AJTHAB. ISSN: 0002-9637.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Nov 1999
Last Updated on STN: 9 Nov 1999

L20 ANSWER 9 OF 10 DISSABS COPYRIGHT (C) 2004 ProQuest Information and Learning Company; All Rights Reserved on STN

ACCESSION NUMBER: 1999:42668 DISSABS Order Number: AAI9920032
TITLE: CHARACTERIZATION AND MOLECULAR CLONING OF DIAGNOSTIC POLYPEPTIDES OF *TAENIA SOLIUM* (CYSTICERCOSIS, IMMUNOBLOT ASSAYS)
AUTHOR: GREENE, RYAN MERRILL [PH.D.]; TSANG, VICTOR C. W. [adviser]
CORPORATE SOURCE: UNIVERSITY OF GEORGIA (0077)
SOURCE: Dissertation Abstracts International, (1998) Vol. 60, No. 2B, p. 490. Order No.: AAI9920032. 76 pages.
DOCUMENT TYPE: Dissertation
FILE SEGMENT: DAI
LANGUAGE: English

AB *Taenia solium* cysticercosis is an important human disease that has serious implications for public health and the economy of many developing nations. While a 98% sensitive and 100% specific enzyme-linked immunoelectrotransfer blot (EITB) currently exists to diagnose this disease, we are attempting to design a simpler assay based on synthetic antigens. We partially purified the diagnostic glycoproteins of the EITB into discrete fractions by preparative gel electrophoresis. Reduction with dithiothreitol (DTT) demonstrated that all proteins in the 20- to 50-kDa range are composed of at least two subunits, of 14- and 18-kDa, and the larger proteins also contain a 21-kDa subunit. The 14- and 18-kDa subunits were shown to share extensive sequence identity, both at the N-terminus and within the peptide chain. We examined the immunoreactivity of the more reactive 14-kDa subunit and found that it was recognized by

antibodies from 100% of patients with parasitologically confirmed neurocysticercosis. Overall, reactivity to the 14-kDa subunit was 77% concordant with the EITB in detecting anti-cysticercosis antibodies and was 100% specific for cysticercosis. Using degenerate oligonucleotide primers corresponding to known amino acid sequence of these subunits, we amplified cDNA clones in a polymerase chain reaction (PCR) that represented the 14- and 18-kDa polypeptides and a third related sequence from a cDNA library prepared from *T. solium* cysticerci. The translated amino acid sequences of the three clones share significant sequence homology and encode 3 different polypeptides with predicated molecular weights of approximately 8-kDa. The 14- and 18-kDa cDNA sequences were subcloned into the plasmid pET-32 and were expressed as 28-kDa thioredoxin fusion proteins in *Escherichia coli*. The recombinant polypeptides reacted specifically in an immunoblot with pooled sera from individuals with confirmed cysticercosis, and did not react with cross-reactive echinococcosis sera, further indicating that these antigens may be important components of an assay based on synthetic antigens.

L20 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 7
 ACCESSION NUMBER: 1990:4084 HCAPLUS
 DOCUMENT NUMBER: 112:4084
 TITLE: Isolation of diagnostic glycoprotein antigens to *Taenia solium*, and an immunoblot assay, method, and kit for the detection of human cysticercosis
 INVENTOR(S): Tsang, Victor C. W.; Brand, Joy A.; Boyer, Anne E.; Wilson, Marianna; Schantz, Peter M.; Maddison, Shirley E.
 PATENT ASSIGNEE(S): United States Dept. of Health and Human Services, USA
 SOURCE: U. S. Pat. Appl., 35 pp. Avail. NTIS Order No. PAT-APPL-7-292 393.
 CODEN: XAXXAV
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 292393	A0	19890615	US 1988-292393	19881230
US 5354660	A	19941011	US 1992-863486	19920402
PRIORITY APPLN. INFO.:			US 1988-292393	19881230

AB A method for diagnosis of active human neurocysticercosis employs an immunoblot assay comprising detection of antibodies in human serum or cerebrospinal fluid. The antibodies are reacted with ≥ 1 *Taenia solium* larval antigen isolated by lentil-lectin affinity chromatog., ≥ 1 of the antigens being selected from glycoproteins of 13, 14, 18, 21, 24, 39-42, and 50 kilodalton mol. weight. A kit used in the diagnosis is also provided. Glycoprotein antigens were isolated from a homogenate of *T. solium* cysts treated with urea and freon and purified.

10/048146

with lentil-lectin-Sepharose 4B chromatog. The antigens were further treated with SDS and antigen concentration optimized by SDS-PAGE, immunoblotting, and exposure to normal serum and *T. solium*, and *Echinococcus* antiserum pools. Following a standard development procedure, the concentration which yielded all 7 clear diagnostic bands with *T. solium* antisera and min. cross-reactive bands, if any, with the other 2 antigens, was selected as optimum antigen concentration. A western blot immunoassay using the above diagnostic glycoprotein antigens for *T. solium* antibody detection in serum or cerebrospinal fluid was developed. With respect to band recognition frequencies and patterns, the 24 and 42 kilodalton glycoprotein bands were the most commonly recognized antigens among cysticercosis patients. Almost all patients react to >1 of the diagnostic bands, >50% reacted to ≥ 6 of 7 bands, and almost 40% of patients recognized all 7 of the diagnostic glycoproteins. The Western blot assay of the invention had 100% specificity and 98% sensitivity, based on results of all specimens tested from cysticercosis, heterologous infection, and control cases.

FILE 'HOME' ENTERED AT 12:14:42 ON 25 MAR 2004

10/048146

FILE 'REGISTRY' ENTERED AT 12:01:04 ON 25 MAR 2004

L1 E "PROTEIN TS-14"/CN 5
2 S E4-E5
L2 E "PROTEIN TSRS-1"/CN
1 S E4-5
L3 3 S L1 OR L2

-key terms

FILE 'HCAPLUS' ENTERED AT 12:01:55 ON 25 MAR 2004

L1 2 SEA FILE=REGISTRY ABB=ON PLU=ON ("PROTEIN TS-14
(TAENIA SOLIUM LARVA)"/CN OR "PROTEIN TS-18 (TAENIA
SOLIUM LARVA)"/CN)
L2 1 SEA FILE=REGISTRY ABB=ON PLU=ON ("PROTEIN TSRS-1
(TAENIA SOLIUM LARVA)"/CN OR "PROTEIN TSRS1 (TS RELATED
SEQUENCE 1) (TAENIA SOLIUM C-TERMINAL FRAGMENT)"/CN)
L3 3 SEA FILE=REGISTRY ABB=ON PLU=ON L1 OR L2
L4 79 SEA FILE=HCAPLUS ABB=ON PLU=ON L3 OR TS14 OR TS18 OR
TSRS1 OR TS(W) (14 OR 18) OR TSRS 1
L5 10904 SEA FILE=HCAPLUS ABB=ON PLU=ON 14KD? OR 18KD? OR 21KD?
OR (14 OR 18 OR 21) (5A) (KD? OR KILOD? OR KILO(W) (DA OR
DALTON))
L6 18 SEA FILE=HCAPLUS ABB=ON PLU=ON (L4 OR L5) AND (SOLIUM
OR TAPE WORM OR TAPEWORM)

L6 ANSWER 1 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 16 Jul 2003

ACCESSION NUMBER: 2003:542653 HCAPLUS

DOCUMENT NUMBER: 139:148143

TITLE: Characterization of the 8-kilodalton antigens of
Taenia solium metacestodes and
evaluation of their use in an enzyme-linked
immunosorbent assay for serodiagnosis

AUTHOR(S): Hancock, Kathy; Khan, Azra; Williams, Fatima B.;
Yushak, Melinda L.; Pattabhi, Sowmya; Noh, John;
Tsang, Victor C. W.

CORPORATE SOURCE: Division of Parasitic Diseases, Centers for
Disease Control and Prevention, Atlanta, GA,
30341, USA

SOURCE: Journal of Clinical Microbiology (2003), 41(6),
2577-2586

CODEN: JCMIDW; ISSN: 0095-1137

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The Western blot for cysticercosis, which uses lentil lectin
purified glycoprotein (LLGP) antigens extracted from the metacestode of
Taenia solium, has been the "gold standard" serodiagnostic assay since
it was first described in 1989. The authors report that the
diagnostic antigens at 14, 18, and 21
kDa, as well as some larger disulfide-bonded antigens, are
actually all members of a very closely related family of proteins,
the 8-kDa antigens. The genes for 18 unique, mature proteins have
been identified. Nine of these were chemically synthesized and tested in
an ELISA with a battery of defined serum samples, including 32
cysticercosis-pos. serum samples reactive with the 8-kDa antigens of
LLGP on Western blotting, 34 serum samples from patients with other
parasitic infections, and 15 normal human serum samples. One of the

10/048146

8-kDa antigens, **TSRS1**, is 100% sensitive and 100% specific. **TsRS1** will be one component of a cocktail of three to four synthetic or recombinant antigens, based on the diagnostic bands of the Western blot, which will be used for the serodiagnosis of cysticercosis.

REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 28 Aug 2002

ACCESSION NUMBER: 2002:648184 HCAPLUS

DOCUMENT NUMBER: 137:368132

TITLE: Excretory/secretory antigens (ES) from in-vitro cultures of *Taenia crassiceps* cysticerci, and use of an anti-ES monoclonal antibody for antigen detection in samples of cerebrospinal fluid from patients with neurocysticercosis

AUTHOR(S): Espindola, N. M.; Vaz, A. J.; Pardini, A. X.; Fernandes, I.

CORPORATE SOURCE: Laboratory of Clinical Immunology, Faculty of Pharmaceutical Sciences, University of Sao Paulo, Sao Paulo, 05508-900, Brazil

SOURCE: Annals of Tropical Medicine & Parasitology (2002), 96(4), 361-368

CODEN: ATMPA2; ISSN: 0003-4983

PUBLISHER: Maney Publishing

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Antigens were obtained from cysticerci of the ORF strain of *Taenia crassiceps*, by culture of cysts in protein-free hybridoma medium (PFHM). Budding of new vesicles was observed after 24-48 h. Excretory/secretory (ES) antigens (peptides of < 20 kDa) were recovered in the medium after culture for 48 h. SDS-PAGE anal. of vesicular-fluid (VF) antigens (obtained by rupturing *T. crassiceps* cysticerci in PFHM) and the ES antigens indicated partial homol. between the two preps. ES peptides of 18- and 14-kDa were recognized by polyclonal antibodies produced in rabbits immunized either with the VF antigens or with a total-antigen preparation of *T. solium* cysticerci. Antibodies present in samples of serum or cerebrospinal fluid (CSF) from patients with neurocysticercosis also reacted with ES peptides. An anti-ES monoclonal antibody detected antigens in the CSF from 10 patients with neurocysticercosis, showing the antigenic homol. of the ES antigens with those of *T. solium* cysticerci in human infections.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 25 Jun 2002

ACCESSION NUMBER: 2002:474386 HCAPLUS

DOCUMENT NUMBER: 137:350968

TITLE: Evaluation of an antigen from *Taenia crassiceps* cysticercus for the serodiagnosis of

Searcher : Shears 571-272-2528

neurocysticercosis

AUTHOR(S): Peralta, Regina H. S.; Vaz, Adelaide J.;
Pardini, Alessandra; Macedo, Heloisa W.;
Machado, Luis R.; De Simone, Salvatori G.;
Peralta, Jose M.

CORPORATE SOURCE: Faculdade de Medicina, Departamento de
Patologia, Universidade Federal Fluminense,
Niteroi, Brazil

SOURCE: Acta Tropica (2002), 83(2), 159-168
CODEN: ACTRAQ; ISSN: 0001-706X

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The authors report here the evaluation of an antigen from *Taenia crassiceps* cysticercus as a potential reagent in an enzyme-immunoelctrotransfer blotting assay (EITB) and an ELISA for the serodiagnosis of neurocysticercosis (NC) using clin. specimens obtained from patients in different phases of the disease. Serum and cerebrospinal fluid (CSF) samples from 64 patients suspected of having NC according to clin. manifestation and brain computed tomog. were tested by ELISA with *Taenia solium* total saline antigen (ELISA-Tso) and by immunoblotting with *T. crassiceps* glycoproteins antigen (EITB-gpTcra). Forty-five serum samples were also tested immunoblotting with *T. solium* glycoproteins antigen (EITB-gpTso) and 30 were tested by ELISA with *T. crassiceps* 14 kDa glycoprotein (ELISA-gp14Tcra). Serum samples from apparently healthy individuals without any parasitic disease and from patients with other parasitic diseases were included as controls. The results of ELISA-Tso anal. with CSF obtained from 64 patients with NC showed that 53 (83%) were reactive. EITB-gpTcra anal. with serum from the same group of patients showed a sensitivity of 91%. Results of EITB-gpTso and EITB-gpTcra anal. with serum samples demonstrated an agreement of 100% between both tests. ELISA-gp14Tcra was pos. in 23 (77%) sera, 22 with paired CSF pos. When ELISA-gp14Tcra results were compared to EITB-Tso results, a relative sensitivity of 95% was observed. All serum samples from the control group were neg. in ELISA-gp14Tcra and only one serum from an individual with *Taenia saginata* was reactive in this assay, showing a specificity of 99% for ELISA-gp14Tcra. This fraction was purified in only one step with a good yield for use in immunoassays. The authors suggest that the gp14Tcra antigen can be used for detecting anti-cysticercus antibodies in serum samples for epidemiol. investigation purposes and also for diagnostic screening of NC patients.

REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L6 ANSWER 4 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 01 May 2002

ACCESSION NUMBER: 2002:324888 HCAPLUS

DOCUMENT NUMBER: 137:18939

TITLE: Assessment of antibody responses to antigens of
Mycobacterium tuberculosis and *Cysticercus*
cellulosae in cerebrospinal fluid of chronic
meningitis patients for definitive diagnosis as

10/048146

AUTHOR(S): TBM/NCC by passive hemagglutination and immunoblot assays
Katti, Muralidhar K.
CORPORATE SOURCE: Department of Microbiology, Immunology Laboratory, Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram, 695 011, India
SOURCE: FEMS Immunology and Medical Microbiology (2002), 33(1), 57-61
CODEN: FIMIEV; ISSN: 0928-8244
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Tanned sheep erythrocytes stabilized with pyruvic aldehyde and glutaraldehyde, called double-aldehyde-stabilized cells, were used to standardize passive hemagglutination assay (PHA) for detection of antibody responses to sonicate extract of Mycobacterium tuberculosis and Cysticercus cellulosae soluble antigens. PHA was performed in the following groups of cerebrospinal fluid (CSF) samples: group I - chronic infections of the central nervous system with the possible diagnosis of tuberculous meningitis (TBM), tuberculoma and neurocysticercosis (NCC) (n=88), and group II - controls which included (a) non-infectious non-neurol. conditions (n=30), (b) infectious neurol. conditions (n=21) and (c) non-infectious neurol. conditions (n=133). PHA could detect anti-mycobacterial antibodies at the sensitivity level of 80.76% with a specificity of 92.4% and anti-cysticercal antibodies with a sensitivity of 100% and specificity of 92.94%. However, in 6.33% (i.e. 14/221) of group I and group II (c) CSFs both anti-mycobacterial and anti-cysticercal antibodies were detected. Immunoblot anal. of CSFs derived from TBM patients reacted predominantly to 120-kDa, 96-kDa, 65-kDa, 38-kDa, 26-kDa, 23-kDa, 19-kDa and 12-14-kDa and 4-6-kDa antigens of M. tuberculosis sonicate extract (MTSE), while CSFs of proven NCC reacted to >110-kDa, 96-kDa, 80-kDa, 66-68-kDa, 52-kDa and 26-28-kDa antigens of porcine whole cyst sonicate extract (PCSE). On immunoblot anal., some of the CSFs of TBM patients were PHA pos. for both MTSE and PCSE showed antibody reactivity to 70-kDa and 10-kDa antigens of C. cellulosae. Similarly CSF antibody of some Guillain Barre syndrome and myeloradiculopathy patients reacted with cysticercal antigens. But per se no cross-reactivity between MTSE and anti-cysticercal antibodies and vice-versa were observed. However, findings of this study should alert laboratory personnel especially in endemic areas to be extra careful in interpretation of antibody detection results.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 28 Jan 2002

ACCESSION NUMBER: 2002:74916 HCAPLUS

DOCUMENT NUMBER: 137:45604

TITLE: Use of Taenia crassiceps cysticercus antigen preparations for detection of antibodies in cerebrospinal fluid samples from patients with

Searcher : Shears 571-272-2528

10/048146

AUTHOR(S): neurocysticercosis (*Taenia solium*)
Pardini, Alessandra Xavier; Peralta, Regina
Helena; Vaz, Adelaide Jose; dos Ramos Machado,
Luis; Peralta, Jose Mauro
CORPORATE SOURCE: Laboratory of Clinical Immunology, Faculty of
Pharmaceutical Sciences, University of Sao
Paulo, Sao Paulo, CEP 05508-90, Brazil
SOURCE: Clinical and Diagnostic Laboratory Immunology
(2002), 9(1), 190-193
CODEN: CDIMEN; ISSN: 1071-412X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Antigen exts. obtained from the vesicular fluid of *Taenia crassiceps*
cysticerci and from fractions purified by affinity chromatog. with
the lectin Con A and the glycoprotein antigen separated by
electrophoresis were used for the detection of *Taenia solium*
anticysticercus antibodies. The sensitivity and specificity
obtained for all antigens were 100% in ELISA with good
reproducibility. Using immunoblotting of the three antigens,
low-mol.-mass peptides (18 and 14 kDa)
were characterized only in cerebrospinal fluid samples from patients
with neurocysticercosis. The results confirm that antigen fractions
purified from *T. crassiceps* cysticerci are important sources of
specific peptides and proved to be efficient in detecting anti-*T.*
solium antibodies.

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L6 ANSWER 6 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 14 Dec 2001

ACCESSION NUMBER: 2001:904945 HCAPLUS

DOCUMENT NUMBER: 136:368028

TITLE: Serodiagnosis of human cysticercosis by using
antigens from vesicular fluid of *Taenia*
crassiceps cysticerci

AUTHOR(S): Bueno, Edneia C.; Sneege, Miriam; Vaz, Adelaide
J.; Leser, Paulo G.

CORPORATE SOURCE: Laboratory of Clinical Immunology, Faculty of
Pharmacy, University of the Vale do Itajai,
Itajai SC, Brazil

SOURCE: Clinical and Diagnostic Laboratory Immunology
(2001), 8(6), 1140-1144

CODEN: CDIMEN; ISSN: 1071-412X

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Neurocysticercosis (NC), caused by the presence of *Taenia*
solium metacestodes in tissues, is a severe parasitic
infection of the central nervous system with universal distribution.
To determine the efficiency of ELISA and immunoblot with antigens of *T.*
crassiceps vesicular fluid (Tcra) compared to standard techniques
[indirect immunofluorescence test (IFT) and complement fixation test
(CFT)] using *T. solium* cysticerci (Tso) for the
serodiagnosis of NC, the authors studied serum samples from 24

patients with NC, 30 supposedly healthy individuals, 76 blood bank donors, 45 individuals with other non-NC parasitoses, and 97 samples from individuals screened for cysticercosis serol. (SC). The sensitivity observed was 100% for ELISA-Tso and ELISA-Tcra, 91.7% for the IFT, and 87.5% for the CFT. The specificity was 90% for ELISA-Tso, 96.7% for ELISA-Tcra, 50% for IFT, and 63.3% for CFT. The efficiency was highest for ELISA-Tcra, followed by ELISA-Tso, IFT, and CFT. Of the 23 samples from SC group, which were reactive to ELISA-Tso and/or ELISA-Tcra, only 3 were pos. to immunoblot-Tcra (specific peptides of 14- and 18-kDa) and to glycoprotein peptides purified from Tcra antigen (gp-Tcra), showing the low predictive value of ELISA for screening. None of the samples from the remaining groups showed specific reactivity in immunoblot-Tcra. These results demonstrate that ELISA-Tcra can be used as a screening method for the serodiagnosis of NC and support the need for specific tests for confirmation of the results. The immunoblot can be used as a confirmatory test both with Tcra and gp-Tcra, with the latter having an advantage in terms of visualization of the results.

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 30 Nov 2001

ACCESSION NUMBER: 2001:865925 HCAPLUS

DOCUMENT NUMBER: 136:260208

TITLE: Sequence variation in the cytochrome oxidase I, internal transcribed spacer 1, and **Ts14** diagnostic antigen sequences of **Taenia solium** isolates from South and Central America, India, and Asia

AUTHOR(S): Hancock, K.; Broughel, D. E.; Moura, I. N. S.; Khan, A.; Pieniazek, N. J.; Gonzalez, A. E.; Garcia, H. H.; Gilman, R. H.; Tsang, V. C. W.

CORPORATE SOURCE: Division of Parasitic Diseases, Centers for Disease Control and Prevention, Atlanta, GA, 30341, USA

SOURCE: International Journal for Parasitology (2001), 31(14), 1601-1607

CODEN: IJPYBT; ISSN: 0020-7519

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We examined the genetic variability in the pig-human **tapeworm**, **T. solium**, by sequencing the genes for cytochrome oxidase I, internal transcribed spacer 1, and a diagnostic antigen, **Ts14**, from individual cysts isolated from Peru, Colombia, Mexico, India, China, and the Philippines. For these genes, the rate of nucleotide variation was minimal. Isolates from these countries can be distinguished based on 1-8 nucleotide differences in the 396 nucleotide cytochrome oxidase I (COI) sequence. However, all of the 15 isolates from within Peru had identical COI sequences. The **Ts14** sequences from India and China were identical and differed from the Peru sequence by 3 nucleotides in 333. These data indicate that there is minimal genetic variability within the

species *T. solium*. Minimal variability was also seen in the ITS1 sequence, but this variation was observed within the individual. Twenty-two cloned sequences from 6 isolates sorted into 13 unique sequences. The variability observed within the sequences from individual cysts was as great as the variability between the isolates.

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 30 May 2001

ACCESSION NUMBER: 2001:389934 HCAPLUS

DOCUMENT NUMBER: 135:179334

TITLE: The role of N-linked carbohydrates in the antigenicity of *Taenia solium* metacestode glycoproteins of 12, 16 and 18 kDa

AUTHOR(S): Obregon-Henao, A.; Gil, D. L.; Gomez, D. I.; Sanzon, F.; Teale, J. M.; Restrepo, B. I.

CORPORATE SOURCE: Molecular Parasitology Group, Corporacion para Investigaciones Biologicas, Medellin, Colombia

SOURCE: Molecular and Biochemical Parasitology (2001), 114(2), 209-215

CODEN: MBIPDP; ISSN: 0166-6851

PUBLISHER: Elsevier Science Ireland Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The glycoproteins of 12-28 kDa from *T. solium* metacestodes provide a high specificity and sensitivity for the serol. diagnosis of the central nervous system infection, neurocysticercosis. Their widespread use as antigens for routine serol. assays will require their production in large and reproducible amts. Prior to determining the ideal strategy to produce these antigens at a large scale, it is important to determine the contribution of the carbohydrates to the antigenicity of these mols., given the uncertainty of reproducing saccharidic epitopes in recombinant expression systems. Here, the authors examined this issue. The chemical oxidation of the carbohydrates of the 12-28 kDa glycoproteins with sodium metaperiodate, reduced the antigenicity of the mols. to variable extents, with the more notable changes being detected for the 18 and 28 kDa antigens. This approach was complemented by purification of the 12, 16 and 18 kDa antigens, followed by the enzymic deglycosylation of their abundant N-linked oligosaccharides. Silver-stained SDS-PAGE anal. indicated that the 3 deglycosylated antigens now migrated as 7 kDa products, suggesting a protein backbone with a similar size, but different extents of glycosylation. By Western blot, the antigenicity of these antigens was diminished. This was more notable for the 18 kDa antigen, which is more heavily glycosylated than the 12 or 16 kDa glycoproteins. Apparently, the antigenicity of the glycoproteins of *T. solium* is due to a combination of carbohydrate and protein epitopes.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/048146

L6 ANSWER 9 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 15 Feb 2001
ACCESSION NUMBER: 2001:115179 HCAPLUS
DOCUMENT NUMBER: 134:175260
TITLE: Methods and compositions for detecting larval
Taenia solium
INVENTOR(S): Tsang, Victor C. W.; Greene, Ryan M.; Wilkins,
Patricia P.; Hancock, Kathy
PATENT ASSIGNEE(S): Government of the United States of America as
represented by the Secretary, Department of
Health and Human Services, USA
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001010897	A2	20010215	WO 2000-US21173	20000803
WO 2001010897	A3	20010503		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2000067562	A5	20010305	AU 2000-67562	20000803
PRIORITY APPLN. INFO.:			US 1999-147318P	P 19990805
			WO 2000-US21173	W 20000803
AB	Compns. and methods for the detection of Taenia solium and the diagnosis and treatment of T. solium infection are described. The nucleotide and amino acid sequences of the antigenic polypeptides TS-14, TS-18 and TSRS-1 are provided. The compns. contain antigenic polypeptides of larval origin. The polypeptides are useful as research tools for studying T. solium and as reagents in assays for the detection of T. solium antibodies in a biol. sample. The methods are sensitive and specific assays that utilize the antigenic polypeptides or nucleic acid mols. encoding the larval polypeptides.			
IT	325862-05-3P, Protein TS-14 (Taenia solium larva) 325862-06-4P, Protein TS- 18 (Taenia solium larva) 325862-07-5P, Protein TSRS-1 (Taenia solium larva) RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (amino acid sequence; methods and compns. for detecting larval Taenia solium)			

NO
Sept.

Searcher : Shears 571-272-2528

L6 ANSWER 10 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
 ED Entered STN: 10 Nov 2000
 ACCESSION NUMBER: 2000:787125 HCAPLUS
 DOCUMENT NUMBER: 135:117702
 TITLE: *Taenia solium*: Molecular cloning and serologic evaluation of 14- and 18-kDa related, diagnostic antigens
 AUTHOR(S): Greene, Ryan M.; Hancock, Kathy; Wilkins, Patricia P.; Tsang, Victor C. W.
 CORPORATE SOURCE: Department of Cellular Biology, University of Georgia, Athens, GA, USA
 SOURCE: Journal of Parasitology (2000), 86(5), 1001-1007
 CODEN: JOPAA2; ISSN: 0022-3395
 PUBLISHER: American Society of Parasitologists
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB We are attempting to design a simpler assay based on synthetic or recombinant antigens to replace the labor-intensive enzyme-linked immunoelectrotransfer blot (EITB-C), which is currently used to diagnose *Taenia solium* cysticercosis. From the lentil lectin-bound fraction of cyst glycoproteins (the LLGP fraction used in the EITB-C), we previously identified and purified 2 related polypeptides of 14- and 18-kDa that demonstrated diagnostic usefulness. Using degenerate oligonucleotide primers corresponding to amino acid sequences of these polypeptides and a cDNA library prepared from *T. solium* cysticerci, we amplified cDNA clones that represent the 14- and 18-kDa polypeptides. These clones share sequence homol. at the nucleotide and amino acid levels. Synthetic polypeptides that represented the full-length, mature proteins (sTS14 and sTS18) were assessed for serol. potential using an ELISA. sTS14, but not sTS18, demonstrated utility as a diagnostic antigen. sTS14 was recognized by antibodies in a majority of the sera from patients with cysticercosis and none of the sera from persons with other helminth infections or uninfected human sera. Furthermore, polyclonal antibodies to sTS14 reacted with 6 discrete proteins present in the LLGP cyst fraction, suggesting that TS14 is a subunit of other previously described antigens used for diagnosing cysticercosis.

IT 325862-06-4
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
 (amino acid sequence; cloning, sequence and serol. evaluation of *Taenia solium* glycoproteins TS18 and TS14)

IT 325862-07-5
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
 (amino acid sequence; of *Taenia solium* TS related sequence 1 (TSRS1) protein)

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/048146

L6 ANSWER 11 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 14 Aug 2000
ACCESSION NUMBER: 2000:559072 HCAPLUS
DOCUMENT NUMBER: 134:129864
TITLE: ELISA and Western blotting tests in the
detection of IgG antibodies to *Taenia solium* metacestodes in serum samples in
human neurocysticercosis
AUTHOR(S): Shiguekawa, Kely Yoshiko Martins; Mineo, Jose
Roberto; de Moura, Leandro Pajuaba; Costa-Cruz,
Julia Maria
CORPORATE SOURCE: Department of Immunology, Microbiology and
Parasitology, Federal University of Uberlandia,
Uberlandia, Brazil
SOURCE: Tropical Medicine & International Health (2000),
5(6), 443-449
CODEN: TMIHFL; ISSN: 1360-2276
PUBLISHER: Blackwell Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A comparative study of total saline extract (SE) and cyst vesicular
fluid (VF) of *Taenia solium* metacestodes by ELISA and
Western blotting assay (WB) tests was conducted to detect IgG in
sera for diagnosis of human cysticercosis. Sera were obtained and
analyzed by ELISA in 1: 20 and 1: 100 dilns. from 208 individuals:
22 confirmed neurocysticercosis (NC) (group 1), 101 suspected NC
(group 2), 55 with various intestinal parasitosis (group 3) and 30
healthy individuals (group 4). The WB test was carried out on SE
and VF exts. with and without reducing agent, 2- β -
mercaptoethanol (2-ME) in 20 sera of each group. WB using exts.
without 2-ME and ELISA at 1: 100 dilution were compared in 20 sera from
each group; sensitivity and specificity were calculated using samples
from groups 1, 3 and 4. By ELISA, in the 1: 100 sera dilution
reactivity was reduced for both antigens without changes in the
sensitivity of the test. By WB, antigens treated with 2-ME
demonstrated low specificity. For SE and VF antigens, the proteins
of 24, 39-42, 47-52, 56, 64-68, 126-155 kDa and 18-
, 24, 26-28, 32-36, 47-52, 75 kDa, resp., were considered
immunodominant markers, with high indexes of specificity, suggesting
a profile for NC patients. However, as the sensitivity was found to
be low, it might still not be a definitive test for NC when used
alone. These data suggest WB as an indicative test to determine exposure
to *T. solium*. ELISA and WB together may supply reliable
results for the diagnosis of human cysticercosis, since appropriate
purified antigens are not available yet.
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L6 ANSWER 12 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 26 May 1999
ACCESSION NUMBER: 1999:320507 HCAPLUS
DOCUMENT NUMBER: 131:71424
TITLE: Diagnostic glycoproteins of *Taenia solium* cysts share homologous 14
- and 18-kDa subunits

Searcher : Shears 571-272-2528

AUTHOR(S): Greene, Ryan M.; Wilkins, Patricia P.; Tsang, Victor C. W.
 CORPORATE SOURCE: Department of Cellular Biology, University of Georgia, Athens, GA, USA
 SOURCE: Molecular and Biochemical Parasitology (1999), 99(2), 257-261
 CODEN: MBIPDP; ISSN: 0166-6851
 PUBLISHER: Elsevier Science Ireland Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Lentil lectin-bound glycoprotein antigens (LL-GP) from *T. solium* larval cysts were purified by SDS-PAGE and reduced with DTT. All glycoprotein fractions between 20 and 50 kDa contained proteins that, when reduced, yielded both 14- and 18-kDa subunits; fractions >30 kDa also included a 21-kDa subunit. The 14- and 18-kDa subunits showed considerable homol. in their N-terminal and internal amino acid sequences. Of human sera testing pos. for LL-GP in an enzyme-linked immunoelectrotransfer blot (EITB) test, 77% recognized the 14-kDa subunit, including 100% of sera from parasite-confirmed cases; the 18-kDa subunit was less immunoreactive and did not detect any cases that were not reactive with the 14-kDa subunit. LL-GP-pos. sera which did not react with the 14-kDa subunit reacted only with larger glycoproteins (24, 39-42, and 50 kDa). A diagnostic test incorporating both the 14-kDa subunit and ≥1 of the larger glycoproteins would probably approach the sensitivity and specificity of the EITB, and might be adapted for use with synthetic or cloned antigens in an inexpensive, rapid, and simple assay.

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 13 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
 ED Entered STN: 12 Aug 1998
 ACCESSION NUMBER: 1998:500375 HCAPLUS
 DOCUMENT NUMBER: 129:243808
 TITLE: Evaluation of excretory/secretory products of larval *Taenia solium* as diagnostic antigens for porcine and human cysticercosis

AUTHOR(S): Ko, R. C.; Ng, T. F.
 CORPORATE SOURCE: Department of Zoology, The University of Hong Kong, Hong Kong, Peop. Rep. China
 SOURCE: Journal of Helminthology (1998), 72(2), 147-154
 CODEN: JOHLAT; ISSN: 0022-149X
 PUBLISHER: CAB International
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Excretory/secretory antigens (ES) of larval *Taenia solium* were obtained by maintaining the bladder worms in Medium 199 for 3 days. Anal. by SDS-PAGE showed that ES antigens consisted of at least 19 polypeptides, with Mr ranging from 14-116 kDa. Anal. isoelec. focusing revealed eight bands with acidic pI. An immunocytochemical study using the peroxidase

10/048146

method demonstrated the presence of ES epitopes on the tegument of the wall of the spiral canals of bladder worms. The specificity of ES antigens was evaluated by EITB, ELISA and FAST-ELISA using antisera against the common parasites of Chinese pigs and man. ES antigens cross-reacted with the antiserum against larval *T. hydatigena* of pigs. However, these antigens were generally more specific in diagnosing human cysticercosis. Three host-like mols. with mol. masses 43, 58 and 66 kDa were present in the ES products.

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 14 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 09 Jul 1998

ACCESSION NUMBER: 1998:418462 HCAPLUS

DOCUMENT NUMBER: 129:228327

TITLE: A *Taenia solium* oncosphere protein homologous to host-protective *Taenia ovis* and *Taenia saginata* 18 kDa antigens

AUTHOR(S): Gauci, Charles G. P.; Flisser, Ana; Lightowlers, Marshall W.

CORPORATE SOURCE: Molecular Parasitology Laboratory, The University of Melbourne, Werribee, 3030, Australia

SOURCE: International Journal for Parasitology (1998), 28(5), 757-760
CODEN: IJPYBT; ISSN: 0020-7519

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A *Taenia solium* cDNA (TSOL-18) encoding a protein with close homol. to host protective oncosphere antigens from *Taenia ovis* (Tol8) and *Taenia saginata* (TSA-18) is described here. TSOL-18 was cloned from mRNA obtained from hatched and activated oncospheres of *T. solium*. The high level of predicted amino acid sequence homol. among TSOL-18 and other host protective taeniid antigens suggests that the protein expressed by TSOL-18 may be capable of being used as a vaccine against *T. solium* infection in the parasite's intermediate hosts.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 15 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 18 May 1995

ACCESSION NUMBER: 1995:558163 HCAPLUS

DOCUMENT NUMBER: 123:7466

TITLE: Identification of antigenic fractions of *Cysticercus cellulosae* by Western blotting in the serodiagnosis of human neurocysticercosis: before and after treatment

AUTHOR(S): Kaur, Manjit; Ganguly, N. K.; Mahajan, R. C.; Malla, Nancy

CORPORATE SOURCE: Department of Parasitology, Postgraduate Institute of Medical Education and Research,

Searcher : Shears 571-272-2528

SOURCE: Chandigarh, 160012, India
Immunology & Infectious Diseases (1995), 5(1),
67-72
CODEN: IINDEK; ISSN: 0959-4957

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Fractions of *Cysticercus cellulosae* crude extract antigen were isolated using a Sephadex G-200 column. The major peak fraction was subjected to Western blot anal. using pooled serum and cerebrospinal fluid (CSF) samples and individual serum samples from neurocysticercosis patients before and after treatment. The anal. revealed three highly immunoreactive bands (Mol. weight 18, 20 and 24 kDa) with serum samples from neurocysticercosis patients. These components did not react with control samples including individual hydatid serum samples. One well-defined antigenic component (20 kDa) was immunoreactive with CSF pooled sample from neurocysticercosis patients. This component was non-reactive with the control CSF sample pool. Anal. of individual pre- and post-treatment serum samples indicate that the 20 kDa component was immunoreactive in all the seven pre- and post-treatment samples. The 24 kDa component reacted with three pre-treatment samples and this response was not found in all these three post-treatment samples. The 18 kDa component remained pos. in two pre and post-treatment samples. This fraction with 20 kDa antigen may be regarded as the indicator of the effect of chemotherapy.

L6 ANSWER 16 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 11 Jan 1992

ACCESSION NUMBER: 1992:3280 HCAPLUS

DOCUMENT NUMBER: 116:3280

TITLE: Separation of component proteins in cystic fluid of *Taenia solium* metacestodes by gel filtration

AUTHOR(S): Choi, Chang Sig; Kong, Yoon; Kang, Shin Yong; Cho, Seung Yull

CORPORATE SOURCE: Coll. Med., Chung-Ang Univ., Seoul, 156-756, S. Korea

SOURCE: Chungang Uidaechi (1990), 15(4), 319-27
CODEN: CJMEDQ; ISSN: 0253-6250

DOCUMENT TYPE: Journal

LANGUAGE: English

AB This study investigated protein components of *Taenia solium* metacestodes in cystic fluid (CF). The proteins of CR were separated into 7 fractions by filtration through Sephacryl S-300 Superfine. The mol. wts. of proteins in each fraction at their peak points were: 860 kDa in fraction I, 386 kDa in fraction II, 134 kDa in fraction III, 42 kDa in fraction IV, 8.5 kDa in fraction V, and 7 kDa in fraction VI. Fraction VII was considered to be a degradation product. By non-denaturing disk-PAGE, the main protein band in fraction II was identified as band C protein while that in fraction IV was the newly recognized band N. In non-reducing SDS-PAGE the protein in fraction IV showed 44-46 kDa and 21-26 kDa bands, whereas in reducing SDS-PAGE it showed subunits of 21, 18, 15, and 10 kDa.

L6 ANSWER 17 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
 ED Entered STN: 06 Jan 1990
 ACCESSION NUMBER: 1990:4084 HCAPLUS
 DOCUMENT NUMBER: 112:4084
 TITLE: Isolation of diagnostic glycoprotein antigens to
 Taenia solium, and an immunoblot
 assay, method, and kit for the detection of
 human cysticercosis
 INVENTOR(S): Tsang, Victor C. W.; Brand, Joy A.; Boyer, Anne
 E.; Wilson, Marianna; Schantz, Peter M.;
 Maddison, Shirley E.
 PATENT ASSIGNEE(S): United States Dept. of Health and Human
 Services, USA
 SOURCE: U. S. Pat. Appl., 35 pp. Avail. NTIS Order No.
 PAT-APPL-7-292 393.
 CODEN: XAXXAV
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 292393	A0	19890615	US 1988-292393	19881230
US 5354660	A	19941011	US 1992-863486	19920402

PRIORITY APPLN. INFO.: US 1988-292393 19881230

AB A method for diagnosis of active human neurocysticercosis employs an immunoblot assay comprising detection of antibodies in human serum or cerebrospinal fluid. The antibodies are reacted with ≥ 1 Taenia solium larval antigen isolated by lentil-lectin affinity chromatog., ≥ 1 of the antigens being selected from glycoproteins of 13, 14, 18, 21, 24, 39-42, and 50 kilodalton mol. weight. A kit used in the diagnosis is also provided. Glycoprotein antigens were isolated from a homogenate of T. solium cysts treated with urea and freon and purified with lentil-lectin-Sepharose 4B chromatog. The antigens were further treated with SDS and antigen concentration optimized by SDS-PAGE, immunoblotting, and exposure to normal serum and T. solium, and Echinococcus antiserum pools. Following a standard development procedure, the concentration which yielded all 7 clear diagnostic bands with T. solium antisera and min. cross-reactive bands, if any, with the other 2 antigens, was selected as optimum antigen concentration. A western blot immunoassay using the above diagnostic glycoprotein antigens for T. solium antibody detection in serum or cerebrospinal fluid was developed. With respect to band recognition frequencies and patterns, the 24 and 42 kilodalton glycoprotein bands were the most commonly recognized antigens among cysticercosis patients. Almost all patients react to >1 of the diagnostic bands, $>50\%$ reacted to ≥ 6 of 7 bands, and almost 40% of patients recognized all 7 of the diagnostic glycoproteins. The Western blot assay of the invention had 100% specificity and 98% sensitivity, based on results of all specimens tested from cysticercosis, heterologous infection, and control cases.

L6 ANSWER 18 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
 ED Entered STN: 27 Oct 1984

10/048146

ACCESSION NUMBER: 1984:548425 HCAPLUS
DOCUMENT NUMBER: 101:148425
TITLE: A comparison of phlorizin and phloretin
adsorption by the **tapeworm** Hymenolepis
diminuta
AUTHOR(S): Lumsden, Richard D.; Murphy, William A.
CORPORATE SOURCE: Biol. Dep., Tulane Univ., New Orleans, LA,
70118, USA
SOURCE: Comparative Biochemistry and Physiology, Part A:
Molecular & Integrative Physiology (1984),
79A(1), 137-41
CODEN: CBPAB5; ISSN: 0300-9629
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Phloretin and phlorizin adsorbed to the tegument surface of H.
diminuta, with **KDs** of 2.39 mM and 14.7 μ M,
resp., and Vmaxs of 1446 and 12.54 nmoles/g tissue/2 min, resp.
Phloretin adsorption was not inhibited by phlorizin or glucose.
Glucose partially inhibited phlorizin adsorption. Phlorizin, but
not phloretin, adsorption to isolated tegument brush border membrane
prepns. was partially inhibited by N-ethylmaleimide. No indications
of phlorizin hydrolysis to phloretin during incubation with H.
diminuta were obtained. The data suggest spacially sep. and
distinct binding sites for phloretin and phlorizin in the tegument
brush border.

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO, PHIC,
PHIN, TOXCENTER, PASCAL, DISSABS, FEDRIP, CABA, AGRICOLA, VETU,
VETB' ENTERED AT 12:08:24 ON 25 MAR 2004)

L7 113 S L6
L8 38 DUP REM L7 (75 DUPLICATES REMOVED)

L8 ANSWER 1 OF 38 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2003265560 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12791883
TITLE: Characterization of the 8-kilodalton antigens of
Taenia **solium** metacestodes and evaluation
of their use in an enzyme-linked immunosorbent assay
for serodiagnosis.
AUTHOR: Hancock Kathy; Khan Azra; Williams Fatima B; Yushak
Melinda L; Pattabhi Sowmya; Noh John; Tsang Victor C
W
CORPORATE SOURCE: Division of Parasitic Diseases, Centers for Disease
Control and Prevention, Atlanta, Georgia 30341, USA..
khancock@cdc.gov
CONTRACT NUMBER: 1P01 AI51976-01 (NIAID)
U01 AI35894 (NIAID)
SOURCE: Journal of clinical microbiology, (2003 Jun) 41 (6)
2577-86.
Journal code: 7505564. ISSN: 0095-1137.
PUB. COUNTRY: United States
DOCUMENT TYPE: (EVALUATION STUDIES)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200310

Searcher : Shears 571-272-2528

ENTRY DATE: Entered STN: 20030608
 Last Updated on STN: 20031002
 Entered Medline: 20031001

AB The Western blot for cysticercosis, which uses lentil lectin purified glycoprotein (LLGP) antigens extracted from the metacestode of *Taenia solium*, has been the "gold standard" serodiagnostic assay since it was first described in 1989. We report that the diagnostic antigens at 14, 18, and 21 kDa, as well as some larger disulfide-bonded antigens, are actually all members of a very closely related family of proteins, the 8-kDa antigens. The genes for 18 unique, mature proteins have been identified. Nine of these were chemically synthesized and tested in an enzyme-linked immunosorbent assay with a battery of defined serum samples, including 32 cysticercosis-positive serum samples reactive with the 8-kDa antigens of LLGP on Western blotting, 34 serum samples from patients with other parasitic infections, and 15 normal human serum samples. One of the 8-kDa antigens, **TsRS1**, is 100% sensitive and 100% specific. **TsRS1** will be one component of a cocktail of three to four synthetic or recombinant antigens, based on the diagnostic bands of the Western blot, which will be used for the serodiagnosis of cysticercosis.

L8 ANSWER 2 OF 38 CABA COPYRIGHT 2004 CABI on STN
 ACCESSION NUMBER: 2004:7566 CABA
 DOCUMENT NUMBER: 20033193222
 TITLE: Assessment, purification and identification of *Taenia solium* cysticercus cyst fluid antigen by two-dimensional electrophoresis and Western-blot
 AUTHOR: Wang LiNa; Ge LingYun; Dong CaiHua; et al;
 Wang, L. N.; Ge, L. Y.; Dong, C. H.
 CORPORATE SOURCE: Shandong Provincial Institute of Parasitic Diseases, Jining 272033, China.
 SOURCE: China Tropical Medicine, (2003) Vol. 3, No. 6, pp. 717-719. 9 ref.
 Publisher: Editorial Department of China Tropical Medicine. Hainan
 ISSN: 1009-9727
 PUB. COUNTRY: China
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese
 SUMMARY LANGUAGE: English
 ENTRY DATE: Entered STN: 20040112
 Last Updated on STN: 20040112

AB A study was conducted to screen specific antigens with high immunogenicity for diagnosis of cysticercosis [China]. Two-dimensional electrophoresis was used to isolate and purify *Taenia solium* cysticercus cyst fluid antigen, and specific antigenic proteins were screened from sera of cysticercosis patients, hydatidosis patients and other heterosera using western blotting. Two specific antigens with isoelectric point of 9.4 and molecular weights of 14 and 16 kD were obtained. The antigens had a specificity of 100% and were recognized by the sera of patients with acute cysticercosis. Purified antigenic proteins with high specificity and immunoreaction have been

screened.

L8 ANSWER 3 OF 38 MEDLINE on STN DUPLICATE 2
 ACCESSION NUMBER: 2002416268 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 12171617
 TITLE: Excretory/secretory antigens (ES) from in-vitro cultures of *Taenia crassiceps cysticerci*, and use of an anti-ES monoclonal antibody for antigen detection in samples of cerebrospinal fluid from patients with neurocysticercosis.
 AUTHOR: Espindola N M; Vaz A J; Pardini A X; Fernandes I
 CORPORATE SOURCE: Laboratory of Clinical Immunology, Faculty of Pharmaceutical Sciences, University of Sao Paulo, Av. Prof. Lineu Prestes, 580, Bloco 17, 05508-900, Sao Paulo, SP, Brazil.
 SOURCE: Annals of tropical medicine and parasitology, (2002 Jun) 96 (4) 361-8.
 Journal code: 2985178R. ISSN: 0003-4983.
 PUB. COUNTRY: England: United Kingdom
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200209
 ENTRY DATE: Entered STN: 20020813
 Last Updated on STN: 20020928
 Entered Medline: 20020927

AB Antigens were obtained from cysticerci of the ORF strain of *Taenia crassiceps*, by culture of cysts in protein-free hybridoma medium (PFHM). Budding of new vesicles was observed after 24-48 h. Excretory/secretory (ES) antigens (peptides of <20 kDa) were recovered in the medium after culture for 48 h. SDS-PAGE analysis of vesicular-fluid (VF) antigens (obtained by rupturing *T. crassiceps cysticerci* in PFHM) and the ES antigens indicated partial homology between the two preparations. ES peptides of 18- and 14-kDa were recognized by polyclonal antibodies produced in rabbits immunized either with the VF antigens or with a total-antigen preparation of *T. solium* cysticerci. Antibodies present in samples of serum or cerebrospinal fluid (CSF) from patients with neurocysticercosis also reacted with ES peptides. An anti-ES monoclonal antibody detected antigens in the CSF from 10 patients with neurocysticercosis, showing the antigenic homology of the ES antigens with those of *T. solium* cysticerci in human infections.

L8 ANSWER 4 OF 38 MEDLINE on STN DUPLICATE 3
 ACCESSION NUMBER: 2002051754 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 11777854
 TITLE: Use of *Taenia crassiceps cysticercus* antigen preparations for detection of antibodies in cerebrospinal fluid samples from patients with neurocysticercosis (*Taenia solium*).
 AUTHOR: Pardini Alessandra Xavier; Peralta Regina Helena; Vaz Adelaide Jose; Machado Luis dos Ramos; Peralta Jose Mauro
 CORPORATE SOURCE: Laboratory of Clinical Immunology, Faculty of Pharmaceutical Sciences, University of Sao Paulo, Av.

SOURCE: Lineu Prestes 580, Sao Paulo SP. Brazil.
Clinical and diagnostic laboratory immunology, (2002 Jan) 9 (1) 190-3.
Journal code: 9421292. ISSN: 1071-412X.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200202

ENTRY DATE: Entered STN: 20020125
Last Updated on STN: 20020301
Entered Medline: 20020228

AB Antigen extracts obtained from the vesicular fluid of *Taenia crassiceps* cysticerci and from fractions purified by affinity chromatography with the lectin concanavalin A and the glycoprotein antigen separated by electrophoresis were used for the detection of *Taenia solium* anticysticercus antibodies. The sensitivity and specificity obtained for all antigens were 100% in enzyme-linked immunosorbent assay with good reproducibility. Using immunoblotting of the three antigens, low-molecular-mass peptides (18 and 14 kDa) were characterized only in cerebrospinal fluid samples from patients with neurocysticercosis. The results confirm that antigen fractions purified from *T. crassiceps* cysticerci are important sources of specific peptides and proved to be efficient in detecting anti-*T. solium* antibodies.

L8 ANSWER 5 OF 38 MEDLINE on STN DUPLICATE 4

ACCESSION NUMBER: 2002345689 MEDLINE

DOCUMENT NUMBER: PubMed ID: 12088857

TITLE: Evaluation of an antigen from *Taenia crassiceps* cysticercus for the serodiagnosis of neurocysticercosis.

AUTHOR: Peralta Regina H S; Vaz Adelaide J; Pardini Alessandra; Macedo Heloisa W; Machado Luis R; De Simone Salvatori G; Peralta Jose M

CORPORATE SOURCE: Departamento de Patologia, Faculdade de Medicina, Universidade Federal Fluminense, Niteroi, RJ, Brazil.. peralta@micro.ufrj.br

SOURCE: Acta tropica, (2002 Aug) 83 (2) 159-68.
Journal code: 0370374. ISSN: 0001-706X.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200208

ENTRY DATE: Entered STN: 20020629
Last Updated on STN: 20020807
Entered Medline: 20020806

AB We report here the evaluation of an antigen from *Taenia crassiceps* cysticercus as a potential reagent in an enzyme-immuno-electrotransfer blotting assay (EITB) and an enzyme-linked immunosorbent assay (ELISA) for the serodiagnosis of neurocysticercosis (NC) using clinical specimens obtained from patients in different phases of the disease. Serum and cerebrospinal fluid (CSF) samples from 64 patients suspected of having NC according to clinical manifestation and brain computed

tomography were tested by ELISA with *Taenia solium* total saline antigen (ELISA-Tso) and by immunoblotting with *T. crassiceps* glycoproteins antigen (EITB-gpTcra). Forty-five serum samples were also tested immunoblotting with *T. solium* glycoproteins antigen (EITB-gpTso) and 30 were tested by ELISA with *T. crassiceps* 14 kDa glycoprotein (ELISA-gp14Tcra). Serum samples from apparently healthy individuals without any parasitic disease and from patients with other parasitic diseases were included as controls. The results of ELISA-Tso analysis with CSF obtained from 64 patients with NC showed that 53 (83%) were reactive. EITB-gpTcra analysis with serum from the same group of patients showed a sensitivity of 91%. Results of EITB-gpTso and EITB-gpTcra analysis with serum samples demonstrated an agreement of 100% between both tests. ELISA-gp14Tcra was positive in 23 (77%) sera, 22 with paired CSF positive. When ELISA-gp14Tcra results were compared to EITB-Tso results, a relative sensitivity of 95% was observed. All serum samples from the control group were negative in ELISA-gp14Tcra and only one serum from an individual with *Taenia saginata* was reactive in this assay, showing a specificity of 99% for ELISA-gp14Tcra. This fraction was purified in only one step with a good yield for use in immunoassays. We suggest that the gp14Tcra antigen can be used for detecting anti-cysticercus antibodies in serum samples for epidemiological investigation purposes and also for diagnostic screening of NC patients.

L8 ANSWER 6 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

ACCESSION NUMBER: 2002:585205 BIOSIS .
DOCUMENT NUMBER: PREV200200585205
TITLE: Characterization of six proteins diagnostic for cysticercosis.
AUTHOR(S): Hancock, K. [Reprint author]; Khan, A. [Reprint author]; Levine, M. Z. [Reprint author]; Pattabhi, S. [Reprint author]; Yushak, M. [Reprint author]; Williams, F. [Reprint author]; Scheel, C. M. [Reprint author]; Tsang, V. C. W. [Reprint author]
CORPORATE SOURCE: Centers for Disease Control and Prevention, Atlanta, GA, USA
SOURCE: Abstracts of the General Meeting of the American Society for Microbiology, (2002) Vol. 102, pp. 127. print.
Meeting Info.: 102nd General Meeting of the American Society for Microbiology. Salt Lake City, UT, USA. May 19-23, 2002. American Society for Microbiology. ISSN: 1060-2011.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 13 Nov 2002
Last Updated on STN: 13 Nov 2002

AB The disease cysticercosis, caused by the larval form of *Taenia solium*, is endemic in all regions of the world where humans and pigs live in close contact. In Latin America alone, an estimated 400,000 people have symptomatic disease, typically neurologic symptoms due to parasites within the brain. Cysticercosis is diagnosed by detection of specific antibodies or by

brain imaging techniques. The WHO/PAHO preferred immunologic assay for cysticercosis is our western blot using the lentil lectin bound fraction from urea solubilized larvae. Antibody reactivity with any one of six glycoproteins is diagnostic for cysticercosis. In order to develop a simple antibody detection assay for field use, we are characterizing, sequencing, cloning, and expressing the diagnostic proteins. The *T. solium* diagnostic proteins sort into three groups. The glycoproteins at 14, 18, and 21-kDa are all members of the 8-kDa diagnostic antigen family. These are secreted proteins with a mature size of 66 or 67 amino acids. To date, 31, 8-kDa antigen DNA sequences have been identified. These 31 sequences encode 18 unique, but very similar, proteins. By BLAST analysis, these proteins have been identified as members of a cestode-specific hydrophobic, ligand binding family. Eight of the 8-kDa antigens, representing each of the four clades in the family, have been chemically synthesized and evaluated for reactivity with antibodies in an ELISA. The proteins at 24 and 42-kDa are membrane proteins. Both extract into the detergent phase of Tx114 and both share a common N-terminal sequence. Further protein sequencing is underway. The protein at 50-kDa is also a membrane protein, shown to be GPI-anchored. While the proteins at 24/42 and 50 are distinct and fall into two groups, they share the common feature of requiring correct disulfide bond formation for antigenic activity. GP50 has been expressed, in active form, in an insect expression system and is being further evaluated. Our goal is to develop an antigen cocktail, probably consisting of one or more of the 8-kDa proteins, plus GP50, plus the 24 and/or 42-kDa proteins, which has a sensitivity of 98% and a specificity of 100%.

L8 ANSWER 7 OF 38 CABA COPYRIGHT 2004 CABI on STN
 ACCESSION NUMBER: 2002:118199 CABA
 DOCUMENT NUMBER: 20023079658
 TITLE: Assessment of antibody responses to antigens of *Mycobacterium tuberculosis* and *Cysticercus cellulosae* in cerebrospinal fluid of chronic meningitis patients for definitive diagnosis as TBM/NCC by passive hemagglutination and immunoblot assays
 AUTHOR: Katti, M. K.
 CORPORATE SOURCE: Immunology Laboratory, Department of Microbiology, Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram 695 011, India.
 SOURCE: mkk@sctimst.ker.nic.in; m_dhar15@yahoo.com.in
 FEMS Immunology and Medical Microbiology, (2002) Vol. 33, No. 1, pp. 57-61. 26 ref.
 Publisher: Elsevier Science B.V. Amsterdam
 ISSN: 0928-8244
 PUB. COUNTRY: Netherlands Antilles
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ENTRY DATE: Entered STN: 20020708
 Last Updated on STN: 20020708
 AB Tanned sheep erythrocytes stabilized with pyruvic aldehyde and glutaraldehyde, called double-aldehyde-stabilized cells, were used

to standardize passive haemagglutination assay (PHA) for detection of antibody responses to sonicate extract of *M. tuberculosis* and *C. cellulosae* [*Taenia solium*] soluble antigens. PHA was performed in the following groups of cerebrospinal fluid (CSF) samples: group I - chronic infections of the central nervous system with the possible diagnosis of tuberculous meningitis (TBM), tuberculoma and neurocysticercosis (NCC) (n=88), and group II - controls which included (a) non-infectious non-neurological conditions (n=30), (b) infectious neurological conditions (n=21) and (c) non-infectious neurological conditions (n=133). PHA could detect anti-mycobacterial antibodies at the sensitivity level of 80.76% with a specificity of 92.4% and anti-cysticercal antibodies with a sensitivity of 100% and specificity of 92.94%. However, in 6.33% (i.e. 14/221) of group I and group II (c) CSFs both anti-mycobacterial and anti-cysticercal antibodies were detected. Immunoblot analysis of CSFs derived from TBM patients reacted predominantly to 120-kDa, 96-kDa, 65-kDa, 38-kDa, 26-kDa, 23-kDa, 19-kDa and 12-14-kDa and 4-6-kDa antigens of *M. tuberculosis* sonicate extract (MTSE), whilst CSFs of proven NCC reacted to >110-kDa, 96-kDa, 80-kDa, 66-68-kDa, 52-kDa and 26-28-kDa antigens of porcine whole cyst sonicate extract (PCSE). On immunoblot analysis, some of the CSFs of TBM patients were PHA positive for both MTSE and PCSE showed antibody reactivity to 70-kDa and 10-kDa antigens of *C. cellulosae*. Similarly CSF antibody of some Guillain Barre syndrome and myeloradiculopathy patients reacted with cysticercal antigens. But per se no cross-reactivity between MTSE and anti-cysticercal antibodies and vice-versa were observed. However, findings of this study should alert laboratory personnel especially in endemic areas to be extra careful in interpretation of antibody detection results.

L8 ANSWER 8 OF 38 MEDLINE on STN DUPLICATE 5
 ACCESSION NUMBER: 2002164527 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 11896406
 TITLE: Frequency of serum anti-cysticercus antibodies in the population of a rural Brazilian community (Cassia dos coqueiros, SP) determined by Elisa and immunoblotting using *Taenia crassiceps* antigens.
 AUTHOR: Bragazza Lucia M; Vaz Adelaide J; Passos Afonso D C; Takayanagui Osvaldo M; Nakamura Paulo M; Espindola Noeli M; Pardini Alessandra; Bueno Edneia C
 CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Pontificia Universidade Catolica de Campinas, Campinas, SP, Brasil.
 SOURCE: Revista do Instituto de Medicina Tropical de Sao Paulo, (2002 Jan-Feb) 44 (1) 7-12.
 Journal code: 7507484. ISSN: 0036-4665.
 PUB. COUNTRY: Brazil
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200206
 ENTRY DATE: Entered STN: 20020317
 Last Updated on STN: 20020619
 Entered Medline: 20020618
 AB Considering the impact of cysticercosis on public health, especially

the neurologic form of the disease, neurocysticercosis (NC), we studied the frequency of positivity of anti-Taenia **solium** cysticercus antibodies in serum samples from 1,863 inhabitants of Cassia dos Coqueiros, SP, a municipal district located 80 km from Ribeirao Preto, an area considered endemic for cysticercosis. The 1,863 samples were tested by enzyme linked immunosorbent assay (ELISA) using an antigenic extract from Taenia crassiceps vesicular fluid (Tcra). The reactive and inconclusive ELISA samples were tested by immunoblotting. Of the 459 samples submitted to immunoblotting, 40 were strongly immunoreactive to the immunodominant 18 and 14 kD peptides. Considering the use of immunoblotting as confirmatory due to its high specificity, the anti-cysticercus serum prevalence in this population was 2.1%.

L8 ANSWER 9 OF 38 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 ACCESSION NUMBER: 2001-202757 [20] WPIDS
 DOC. NO. CPI: C2001-060194
 TITLE: Composition for detecting larval Taenia **solium**, comprising isolated, synthetic or recombinant larval Taenia **solium** polypeptides that are immunoreactive with Taenia **solium** antibodies.
 DERWENT CLASS: B04 C07 D16
 INVENTOR(S): GREENE, R M; HANCOCK, K; TSANG, V C W; WILKINS, P P
 PATENT ASSIGNEE(S): (USSH) US DEPT HEALTH & HUMAN SERVICES
 COUNTRY COUNT: 94
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001010897	A2	20010215	(200120)*	EN	37
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					
MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE					
DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG					
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ					
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN					
YU ZA ZW					
AU 2000067562	A	20010305	(200130)		
MX 2002001231	A1	20030701	(200366)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001010897	A2	WO 2000-US21173	20000803
AU 2000067562	A	AU 2000-67562	20000803
MX 2002001231	A1	WO 2000-US21173	20000803
		MX 2002-1231	20020201

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000067562	A Based on	WO 2001010897

10/048146

MX 2002001231 A1 Based on

WO 2001010897

PRIORITY APPLN. INFO: US 1999-147318P 19990805

AN 2001-202757 [20] WPIDS

AB WO 200110897 A UPAB: 20010410

NOVELTY - A composition comprising one or more isolated, synthetic or recombinant larval *Taenia solium* polypeptides (I), or its antigenic fragments, immunoreactive with *T. solium* antibodies, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an isolated nucleic acid molecule (II) encoding (I) comprising a sequence of 129, 74 or 73 amino acids, given in the specification, or having a sequence of 2153, 298, or 294 base pairs, given in the specification;

(2) detecting *T. solium* antibodies in a biological sample comprising combining the sample with (I), or antigenic fragments of (I) immunoreactive with *T. solium* antibodies and detecting the formation of a complex between (I) and antibodies; and

(3) diagnosing cysticercosis in a mammal comprising contacting a biological sample of the mammal with (I), or antigenic fragments of (I) immunoreactive with *T. solium* antibodies, and detecting the binding of the antibody present in the biological sample to a *T. solium* glycoprotein antigen, where detection indicates cysticercosis.

ACTIVITY - Immunostimulant; anthelmintic. No biological data is given.

MECHANISM OF ACTION - Vaccine.

USE - (I) is useful for diagnosing cysticercosis in a mammal. (I) is also useful for detecting *T. solium* antibodies in a biological sample (claimed). (I) is useful for reducing, possibly preventing, *T. solium* infection or transmission. (I) is useful in immunoassays for detecting *T. solium*. Nucleic acid (II) encoding (I) is useful as molecular probes or primers for detecting RNA and DNA involved transcription and translation of (I). (I) is also useful as a diagnostic kit to detect the presence and quantity of *T. solium* polypeptides in tissues and cells.

ADVANTAGE - (I) is suitable for diagnosing and monitoring *T. solium* infections in humans and animals, by a method that is inexpensive, sensitive, rapid and accurate, with little or no cross-reactivity. Diagnosis of cysticercosis or neurocysticercosis is carried out by a simple and sensitive method. *T. solium* having a long shelf life can be detected within a short assay time and stable reagents can be utilized in the field. The results could be interpreted without the use of instrumentation or special temperature conditions, which is optimal for use in underdeveloped countries where *T. solium* is often endemic.

Dwg.0/0

L8 ANSWER 10 OF 38

MEDLINE on STN

DUPLICATE 6

ACCESSION NUMBER: 2001482990 MEDLINE

DOCUMENT NUMBER: PubMed ID: 11526181

TITLE: Cysticercus antigens in cerebrospinal fluid samples from patients with neurocysticercosis.

AUTHOR: Pardini A X; Vaz A J; Dos Ramos Machado L; Livramento

Searcher : Shears 571-272-2528

10/048146

J A
CORPORATE SOURCE: Laboratory of Clinical Immunology, Faculty of
Pharmaceutical Sciences, 05508-900 Sao Paulo, SP,
Brazil.
SOURCE: Journal of clinical microbiology, (2001 Sep) 39 (9)
3368-72.
Journal code: 7505564. ISSN: 0095-1137.
PUB. COUNTRY: United States
DOCUMENT TYPE: (EVALUATION STUDIES)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200112
ENTRY DATE: Entered STN: 20010830
Last Updated on STN: 20020122
Entered Medline: 20011204
AB Antigens were detected in cerebrospinal fluid (CSF) samples from
patients with neurocysticercosis (NC) by enzyme-linked immunosorbent
assay (ELISA) using polyclonal sera of rabbit anti-Taenia
solium cysticerci (anti-Tso) and anti-Taenia crassiceps
cysticerci vesicular fluid (anti-Tcra or anti-Tcra <30 kDa). A
group of NC patients (n = 174) were studied (NC), including 40
patients in different phases of the disease. ELISAs carried out
with the anti-Tso, anti-Tcra, and anti-Tcra <30 kDa showed
sensitivities of 81.2, 90, and 95.8% and specificities of 82, 98,
and 100%, respectively. The 14- and 18-
kDa low-molecular-weight peptides were only detected in CSF
samples from patients with NC by immunoblotting with anti-Tso and
anti-Tcra sera. Because of the importance of the diagnosis and
prognosis of cysticercosis, the detection of antigens may contribute
as an additional marker to the study and clarification of the
parasite-host relationship.
L8 ANSWER 11 OF 38 MEDLINE on STN DUPLICATE 7
ACCESSION NUMBER: 2001685005 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11730787
TITLE: Sequence variation in the cytochrome oxidase I,
internal transcribed spacer 1, and **Ts14**
diagnostic antigen sequences of Taenia **solium**
isolates from South and Central America, India, and
Asia.
AUTHOR: Hancock K; Broughel D E; Moura I N; Khan A; Pieniazek
N J; Gonzalez A E; Garcia H H; Gilman R H; Tsang V C
CORPORATE SOURCE: Division of Parasitic Diseases, Centers for Disease
Control and Prevention, Bldg 23, Room 1001, Mail Stop
F-13, 4770 Buford Highway, Atlanta, GA 30341, USA..
khancock@cdc.gov
SOURCE: International journal for parasitology, (2001 Dec) 31
(14) 1601-7.
Journal code: 0314024. ISSN: 0020-7519.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-AF158184; GENBANK-AF356355; GENBANK-AF356356;
GENBANK-AF360865; GENBANK-AF360867; GENBANK-AF360868;

Searcher : Shears 571-272-2528

10/048146

GENBANK-AF360869; GENBANK-AF360870; GENBANK-AF360871;
GENBANK-AF372552; GENBANK-AF372553; GENBANK-AF372554;
GENBANK-AF372555; GENBANK-AF372556; GENBANK-AF372557;
GENBANK-AF372558; GENBANK-AF372559; GENBANK-AF372560;
GENBANK-AF372561; GENBANK-AF372562; GENBANK-AF372563;
GENBANK-AF372564; GENBANK-AF372565; GENBANK-AF372566;
GENBANK-AF372567; GENBANK-AF372568; GENBANK-AF372569

ENTRY MONTH:

200205

ENTRY DATE:

Entered STN: 20011204

Last Updated on STN: 20020508

Entered Medline: 20020507

AB We examined the genetic variability in the pig-human tapeworm, *Taenia solium*, by sequencing the genes for cytochrome oxidase I, internal transcribed spacer 1, and a diagnostic antigen, *Ts14*, from individual cysts isolated from Peru, Colombia, Mexico, India, China, and the Philippines. For these genes, the rate of nucleotide variation was minimal. Isolates from these countries can be distinguished based on one to eight nucleotide differences in the 396 nucleotide cytochrome oxidase I (COI) sequence. However, all of the 15 isolates from within Peru had identical COI sequences. The *Ts14* sequences from India and China were identical and differed from the Peru sequence by three nucleotides in 333. These data indicate that there is minimal genetic variability within the species *T. solium*. Minimal variability was also seen in the ITS1 sequence, but this variation was observed within the individual. Twenty-two cloned sequences from six isolates sorted into 13 unique sequences. The variability observed within the sequences from individual cysts was as great as the variability between the isolates.

L8 ANSWER 12 OF 38

MEDLINE on STN

DUPLICATE 8

ACCESSION NUMBER: 2001638728 MEDLINE

DOCUMENT NUMBER: PubMed ID: 11687454

TITLE: Serodiagnosis of human cysticercosis by using antigens from vesicular fluid of *Taenia crassiceps* cysticerci.

AUTHOR: Bueno E C; Snege M; Vaz A J; Leser P G

CORPORATE SOURCE: Laboratory of Clinical Immunology, Faculty of Pharmacy, University of the Vale do Itajai, Itajai SC.

SOURCE: Clinical and diagnostic laboratory immunology, (2001 Nov) 8 (6) 1140-4.

Journal code: 9421292. ISSN: 1071-412X.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200201

ENTRY DATE: Entered STN: 20011107

Last Updated on STN: 20020128

Entered Medline: 20020125

AB Neurocysticercosis (NC), caused by the presence of *Taenia solium* metacestodes in tissues, is a severe parasitic infection of the central nervous system with universal distribution. To determine the efficiency of enzyme-linked immunosorbent assay (ELISA) and immunoblot with antigens of *T. crassiceps* vesicular

Searcher :

Shears

571-272-2528

fluid (Tcra) compared to standard techniques (indirect immunofluorescence test [IFT] and complement fixation test [CFT]) using *T. solium* cysticerci (Tso) for the serodiagnosis of NC, we studied serum samples from 24 patients with NC, 30 supposedly healthy individuals, 76 blood bank donors, 45 individuals with other non-NC parasitoses, and 97 samples from individuals screened for cysticercosis serology (SC). The sensitivity observed was 100% for ELISA-Tso and ELISA-Tcra, 91.7% for the IFT, and 87.5% for the CFT. The specificity was 90% for ELISA-Tso, 96.7% for ELISA-Tcra, 50% for IFT, and 63.3% for CFT. The efficiency was highest for ELISA-Tcra, followed by ELISA-Tso, IFT, and CFT. Of the 23 samples from SC group, which were reactive to ELISA-Tso and/or ELISA-Tcra, only 3 were positive to immunoblot-Tcra (specific peptides of 14- and 18-kDa) and to glycoprotein peptides purified from Tcra antigen (gp-Tcra), showing the low predictive value of ELISA for screening. None of the samples from the remaining groups showed specific reactivity in immunoblot-Tcra. These results demonstrate that ELISA-Tcra can be used as a screening method for the serodiagnosis of NC and support the need for specific tests for confirmation of the results. The immunoblot can be used as a confirmatory test both with Tcra and gp-Tcra, with the latter having an advantage in terms of visualization of the results.

L8 ANSWER 13 OF 38 MEDLINE on STN DUPLICATE 9
 ACCESSION NUMBER: 2001297919 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 11378200
 TITLE: The role of N-linked carbohydrates in the antigenicity of *Taenia solium* metacestode glycoproteins of 12, 16 and 18 kD
 AUTHOR: Obregon-Henao A; Gil D L; Gomez D I; Sanzon F; Teale J M; Restrepo B I
 CORPORATE SOURCE: Molecular Parasitology Group, Corporacion para Investigaciones Biologicas, Cra. 72A, No. 78, Medellin, Colombia.
 CONTRACT NUMBER: NS 35974 (NINDS)
 TW00953 (FIC)
 SOURCE: Molecular and biochemical parasitology, (2001 May) 114 (2) 209-15.
 Journal code: 8006324. ISSN: 0166-6851.
 PUB. COUNTRY: Netherlands
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 OTHER SOURCE: GENBANK-AF257776; GENBANK-AF350070
 ENTRY MONTH: 200108
 ENTRY DATE: Entered STN: 20010806
 Last Updated on STN: 20010806
 Entered Medline: 20010802

AB The glycoproteins of 12-28 kD from *Taenia solium* metacestodes provide a high specificity and sensitivity for the serological diagnosis of the central nervous system infection, neurocysticercosis. Their widespread use as antigens for routine serological assays will require their production in large and reproducible amounts. Prior to determining the ideal strategy to produce these antigens at a large scale, it is important to

determine the contribution of the carbohydrates to the antigenicity of these molecules, given the uncertainty of reproducing saccharidic epitopes in recombinant expression systems. In this study we examined this issue. The chemical oxidation of the carbohydrates of the 12-28 kD glycoproteins with sodium metaperiodate, reduced the antigenicity of the molecules to variable extents, with the more notable changes being detected for the 18 and 28 kD antigens. This approach was complemented by purification of the 12, 16 and 18 kD antigens, followed by the enzymatic deglycosylation of their abundant N-linked oligosaccharides. Silver-stained SDS-PAGE analysis indicated that the three deglycosylated antigens now migrated as 7 kD products, suggesting a protein backbone with a similar size, but different extents of glycosylation. By Western blot, the antigenicity of these antigens was diminished. This was more notable for the 18 kD antigen, which is more heavily glycosylated than the 12 or 16 kD glycoproteins. These data suggest that the antigenicity of the glycoproteins of *T. solium* is due to a combination of carbohydrate and protein epitopes.

L8 ANSWER 14 OF 38 CABA COPYRIGHT 2004 CABI on STN
 ACCESSION NUMBER: 2002:88567 CABA
 DOCUMENT NUMBER: 20013044363
 TITLE: Enzyme-linked immunoelectrotransfer blot assay (EITB) for detecting IgG and IgG4 antibody in serum of human neurocysticercosis
 AUTHOR: Wu Jing; Li YaJie; Liu Ping; Wang Hui; Wu, J.; Li, Y. J.; Liu, P.; Wang, H.
 CORPORATE SOURCE: Department of Parasitology, Harbin Medical University Harbin, 150086, China.
 SOURCE: Acta Parasitologica et Medica Entomologica Sinica, (2001) Vol. 8, No. 1, pp. 13-18. 7 ref.
 Publisher: Institute of Microbiology and Epidemiology. Beijing
 ISSN: 1005-0507
 PUB. COUNTRY: China
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 SUMMARY LANGUAGE: Chinese
 ENTRY DATE: Entered STN: 20020607
 Last Updated on STN: 20020607

AB Total IgG and IgG4 subclass antibodies were investigated in sera of 4 groups of neurocysticercosis (*Taenia solium*) patients. The first group consisted of parasitologically and clinically confirmed patients before treatment. The second, third and fourth groups comprised treated patients after 1-3, 4-6 and 7-9 therapeutic courses respectively (each therapeutic course lasted 10-14 days). 241 serum samples from these four groups were tested by EITB using lentil-lectin affinity-purified antigens. 36 sera from healthy individuals were used as negative controls. We also tested 27 sera from patients with echinococcosis and clonorchiasis. Compared to negative controls the total IgG and IgG4 subclass antibody levels in the four different groups were respectively 96.3 and 97.5% for the 1st group; 93.3 and 78.6% for the 2nd; 88.0 and 38.0% for the 3rd; 86.1 and 13.9% for the 4th. There was no significant difference for

the total IgG among these four groups ($P > 0.01$). In contrast, the levels of IgG4 antibodies in the post-treatment patients were lower than that of the pre-treatment patients. The positive rate of IgG4 antibody in symptomatic post-treatment patients was 77.0%, but in asymptomatic post-treatment patients it was only 21.3% ($P < 0.001$). None of the antigens recognized by IgG was unique to the four groups. GP42 and GP24 were the most common bands recognized by many patients for IgG, but in the latter two groups, IgG4 distinctively recognized low molecular weight antigen of 18 kDa and 13 kDa. The 36 sera from healthy individuals were all negative. The positive rate of total IgG antibody in 27 sera from heterologous infections was 7.5%; in contrast, these sera were all negative for IgG4.

L8 ANSWER 15 OF 38 MEDLINE on STN DUPLICATE 10
 ACCESSION NUMBER: 2001077753 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 11128471
 TITLE: Taenia solium: molecular cloning and serologic evaluation of 14- and 18-kDa related, diagnostic antigens.
 AUTHOR: Greene R M; Hancock K; Wilkins P P; Tsang V C
 CORPORATE SOURCE: Department of Cellular Biology, University of Georgia, Athens, USA.
 CONTRACT NUMBER: 1-U-19-A145431-01
 5-T32-A107322
 SOURCE: Journal of parasitology, (2000 Oct) 86 (5) 1001-7.
 Journal code: 7803124. ISSN: 0022-3395.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: (EVALUATION STUDIES)
 Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 OTHER SOURCE: GENBANK-AF082828; GENBANK-AF082829; GENBANK-AF082830;
 GENBANK-AF098073; GENBANK-AF098074; GENBANK-AF098075;
 GENBANK-AF158184
 ENTRY MONTH: 200101
 ENTRY DATE: Entered STN: 20010322
 Last Updated on STN: 20010322
 Entered Medline: 20010111

AB We are attempting to design a simpler assay based on synthetic or recombinant antigens to replace the labor-intensive enzyme-linked immunoelectrotransfer blot (EITB-C), which is currently used to diagnose Taenia solium cysticercosis. From the lentil lectin-bound fraction of cyst glycoproteins (the LLGP fraction used in the EITB-C), we previously identified and purified 2 related polypeptides of 14- and 18-kDa that demonstrated diagnostic usefulness. Using degenerate oligonucleotide primers corresponding to amino acid sequences of these polypeptides and a cDNA library prepared from T. solium cysticerci, we amplified cDNA clones that represent the 14- and 18-kDa polypeptides. These clones share sequence homology at the nucleotide and amino acid levels. Synthetic polypeptides that represented the full-length, mature proteins (sTS14 and sTS18) were assessed for serologic potential using an ELISA. sTS14, but not sTS18, demonstrated utility as a diagnostic antigen. sTS14 was recognized

10/048146

by antibodies in a majority of the sera from patients with cysticercosis and none of the sera from persons with other helminth infections or uninfected human sera. Furthermore, polyclonal antibodies to TS14 reacted with 6 discrete proteins present in the LLGP cyst fraction, suggesting that TS14 is a subunit of other previously described antigens used for diagnosing cysticercosis.

L8 ANSWER 16 OF 38 MEDLINE on STN DUPLICATE 11
ACCESSION NUMBER: 2000402134 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10929145
TITLE: ELISA and western blotting tests in the detection of IgG antibodies to Taenia solium metacestodes in serum samples in human neurocysticercosis.
AUTHOR: Shiguekawa K Y; Mineo J R; de Moura L P; Costa-Cruz J M
CORPORATE SOURCE: Department of Immunology, Microbiology and Parasitology, Federal University of Uberlandia, Uberlandia, Brazil.
SOURCE: Tropical medicine & international health : TM & IH, (2000 Jun) 5 (6) 443-9.
Journal code: 9610576. ISSN: 1360-2276.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200008
ENTRY DATE: Entered STN: 20000901
Last Updated on STN: 20000901
Entered Medline: 20000822

AB A comparative study of total saline extract (SE) and cyst vesicular fluid (VF) of Taenia solium metacestodes by ELISA and Western blotting assay (WB) tests was conducted to detect IgG in sera for diagnosis of human cysticercosis. Sera were obtained and analysed by ELISA in 1 : 20 and 1 : 100 dilutions from 208 individuals: 22 confirmed neurocysticercosis (NC) (group 1), 101 suspected NC (group 2), 55 with various intestinal parasitosis (group 3) and 30 healthy individuals (group 4). The WB test was carried out on SE and VF extracts with and without reducing agent, 2-beta-mercaptoethanol (2-ME) in 20 sera of each group. WB using extracts without 2-ME and ELISA at 1 : 100 dilution were compared in 20 sera from each group; sensitivity and specificity were calculated using samples from groups 1, 3 and 4. By ELISA, in the 1 : 100 sera dilution reactivity was reduced for both antigens without changes in the sensitivity of the test. By WB, antigens treated with 2-ME demonstrated low specificity. For SE and VF antigens, the proteins of 24, 39-42, 47-52, 56, 64-68, 126-155 kDa and 18, 24, 26-28, 32-36, 47-52, 75 kDa, respectively, were considered immunodominant markers, with high indices of specificity, suggesting a profile for NC patients. However, as the sensitivity was found to be low, it might still not be a definitive test for NC when used alone. These data suggest WB as an indicative test to determine exposure to T. solium. ELISA and WB together may supply reliable results for the diagnosis of human cysticercosis, since appropriate purified antigens are not available yet.

Searcher : Shears 571-272-2528

L8 ANSWER 17 OF 38 MEDLINE on STN DUPLICATE 12
 ACCESSION NUMBER: 2000398809 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 10887380
 TITLE: Production of monoclonal antibodies anti-Taenia crassiceps cysticerci with cross-reactivity with Taenia solium antigens.
 AUTHOR: Espindola N M; De Gaspari E N; Nakamura P M; Vaz A J
 CORPORATE SOURCE: Faculdade de Ciencias Farmaceuticas, Universidade de Sao Paulo, Sao Paulo, SP, Brasil.
 SOURCE: Revista do Instituto de Medicina Tropical de Sao Paulo, (2000 May-Jun) 42 (3) 175-7.
 Journal code: 7507484. ISSN: 0036-4665.
 PUB. COUNTRY: Brazil
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200008
 ENTRY DATE: Entered STN: 20000824
 Last Updated on STN: 20000824
 Entered Medline: 20000815

AB We describe the production of the potential monoclonal antibodies (MoAbs) using BALB/c mice immunized with vesicular fluid (VF)-Tcra (T. crassiceps) antigen. Immune sera presented anti-VF-Tcra (<20kD) IgG and IgM antibodies with cross-reactivity with T. solium (Tso) antigen (8-12, 14, and 18 kD). After cell fusion, we selected 33 anti-Tcra and anti-Tso reactive IgM-clones and 53 anti-Tcra specific IgG-clones, 5 of them also recognizing Tso antigens. Two clones identified the 8-14 and 18kD peptides of VF-Tcra.

L8 ANSWER 18 OF 38 MEDLINE on STN
 ACCESSION NUMBER: 2002097355 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 11826516
 TITLE: [Immunodiagnosis of neurocysticercosis: comparative study of antigenic extracts from Cysticercus cellulosae and Taenia crassiceps].
 Inmunodiagnostico de la neurocisticercosis: estudio comparativo de extractos antigenicos de Cysticercus cellulosae y Taenia crassiceps.
 AUTHOR: Rossi N; Rivas I; Hernandez M; Urdaneta H
 CORPORATE SOURCE: Instituto de Inmunologia Clinica, Universidad de los Andes, Merida, Venezuela.
 SOURCE: Revista cubana de medicina tropical, (2000 Sep-Dec) 52 (3) 157-64.
 Journal code: 0074364. ISSN: 0375-0760.
 PUB. COUNTRY: Cuba
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: Spanish
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200208
 ENTRY DATE: Entered STN: 20020206
 Last Updated on STN: 20020827
 Entered Medline: 20020826

AB Different antigenic extracts of Taenia solium and Taenia crassiceps were evaluated in connection with the detection of

10/048146

antibodies in patients with neurocysticercosis aimed at selecting immunorelevant antigens for the diagnosis of neurocysticercosis by means of the immunoenzymatic assay and immunoblotting. The vesicular fluid of *T. crassiceps* proved to be more sensitive (100%) and specific (86%). On using the immunoblotting technique it was also observed that this extract was the most sensitive and specific. Within the protein profile of the antigen the band of 18 kDa was mostly recognized by the serum and cerebrospinal fluid of patients with neurocysticercosis. The vesicular fluid of *T. crassiceps* represents an alternative in the optimization of the diagnosis of neurocysticercosis in the serum and cerebrospinal fluid and in the substitution of *T. solium* antigens due to its high sensitivity and specificity and to its easy obtention under controlled laboratory conditions.

L8 ANSWER 19 OF 38 MEDLINE on STN DUPLICATE 13
ACCESSION NUMBER: 1999270314 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10340489
TITLE: Diagnostic glycoproteins of *Taenia solium* cysts share homologous 14- and 18-kDa subunits.
AUTHOR: Greene R M; Wilkins P P; Tsang V C
CORPORATE SOURCE: Department of Cellular Biology, University of Georgia, Athens, USA.. rxg3@cdc.gov
CONTRACT NUMBER: 1-U01A135894-01
5-T32-A107322
SOURCE: Molecular and biochemical parasitology, (1999 Apr 30) 99 (2) 257-61.
Journal code: 8006324. ISSN: 0166-6851.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-AF082828; GENBANK-AF082829; GENBANK-AF082830
ENTRY MONTH: 199907
ENTRY DATE: Entered STN: 19990727
Last Updated on STN: 19990727
Entered Medline: 19990712

L8 ANSWER 20 OF 38 CABA COPYRIGHT 2004 CABI on STN
ACCESSION NUMBER: 1999:76320 CABA
DOCUMENT NUMBER: 19990804338
TITLE: An experimental study on the fusion proteins of *Cysticercus cellulosae* by fluid culture and expression
AUTHOR: Wang Min; Wang KaiHui; Li YaJie; Xu ZhiJie; Wang, M.; Wang, K. H.; Li, Y. J.; Xu, Z. J.
CORPORATE SOURCE: Department of Parasitology, Harbin Medical University, Harbin 150086, China.
SOURCE: Acta Parasitologica et Medica Entomologica Sinica, (1999) Vol. 6, No. 1, pp. 31-34. 9 ref.
ISSN: 1005-0507
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
SUMMARY LANGUAGE: English

Searcher : Shears 571-272-2528

ENTRY DATE: Entered STN: 19990609
 Last Updated on STN: 19990609

AB Recombinant proteins of *Cysticercus cellulosae* [Taenia solium metacestodes] antigens of 28, 18, 14 and 34 kDa were produced. When tested by Dot-ELISA, the recombinant protein of 18 kDa gave the best results. The positive rate was highest when all 4 proteins were used in equal proportion. Compared with crude antigen (by ELISA and IHA) the recombinant proteins were highly specific and more sensitive.

L8 ANSWER 21 OF 38 DISSABS COPYRIGHT (C) 2004 ProQuest Information and Learning Company; All Rights Reserved on STN

ACCESSION NUMBER: 1999:42668 DISSABS Order Number: AAI9920032

TITLE: CHARACTERIZATION AND MOLECULAR CLONING OF DIAGNOSTIC POLYPEPTIDES OF TAENIA SOLIUM (CYSTICERCOSIS, IMMUNOBLOT ASSAYS)

AUTHOR: GREENE, RYAN MERRILL [PH.D.]; TSANG, VICTOR C. W. [adviser]

CORPORATE SOURCE: UNIVERSITY OF GEORGIA (0077)

SOURCE: Dissertation Abstracts International, (1998) Vol. 60, No. 2B, p. 490. Order No.: AAI9920032. 76 pages.

DOCUMENT TYPE: Dissertation

FILE SEGMENT: DAI

LANGUAGE: English

AB <italic>Taenia solium</italic> cysticercosis is an important human disease that has serious implications for public health and the economy of many developing nations. While a 98% sensitive and 100% specific enzyme-linked immunoelectrotransfer blot (EITB) currently exists to diagnose this disease, we are attempting to design a simpler assay based on synthetic antigens. We partially purified the diagnostic glycoproteins of the EITB into discrete fractions by preparative gel electrophoresis. Reduction with dithiothreitol (DTT) demonstrated that all proteins in the 20- to 50-kDa range are composed of at least two subunits, of 14- and 18-kDa, and the larger proteins also contain a 21-kDa subunit. The 14- and 18-kDa subunits were shown to share extensive sequence identity, both at the N-terminus and within the peptide chain. We examined the immunoreactivity of the more reactive 14-kDa subunit and found that it was recognized by antibodies from 100% of patients with parasitologically confirmed neurocysticercosis. Overall, reactivity to the 14-kDa subunit was 77% concordant with the EITB in detecting anti-cysticercosis antibodies and was 100% specific for cysticercosis. Using degenerate oligonucleotide primers corresponding to known amino acid sequence of these subunits, we amplified cDNA clones in a polymerase chain reaction (PCR) that represented the 14- and 18-kDa polypeptides and a third related sequence from a cDNA library prepared from <italic>T. solium</italic> cysticerci. The translated amino acid sequences of the three clones share significant sequence homology and encode 3 different polypeptides with predicated molecular weights of approximately 8-kDa. The 14- and 18-kDa cDNA sequences were subcloned into the plasmid pET-32 and were expressed as 28-kDa